

The TELLOP Online Training Programme

An analysis of the trainees' perception of the French-speaking module

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ABSTRACT

Dans le cadre d'une collaboration Erasmus+, plusieurs universités européennes se sont réunies autour d'un projet commun baptisé TELLOP, dont l'un des objectifs était de créer des synergies entre le monde de la recherche, et celui des acteurs de terrain dans l'enseignement des langues. Le présent mémoire s'attache à analyser la version francophone de la formation organisée par le groupe TELLOP en janvier 2017 sur différentes ressources éducatives libres issues de la recherche. Dans la première partie, nous évoquons les technologies de l'information et de la communication et leur potentiel pour l'acquisition des langues étrangères. Après en avoir fait de même pour les ressources éducatives libres, nous observons la place de ces deux notions dans les programmes d'enseignement et de formation enseignante en Belgique francophone. Dans un deuxième temps, nous décrivons le module de formation et détaillons le type d'informations récoltées auprès des participants, ce qui nous permet ensuite d'en proposer une analyse qualitative et quantitative. Enfin, nous posons un regard plus personnel sur ce programme à la lumière de cinq modèles théoriques.

INTRODUCTION

*'Die Grenzen meiner Sprache bedeuten die Grenzen meiner Welt.'*¹ (Wittgenstein, 1922, 5.6)

What happens to language in a 'connected' era that has virtually no communicational limits? Does it find itself breathed into the world as naturally as air is drawn in when a diaphragm contracts to expand the lungs? A team of researchers from several European universities has gathered around a collaborative project, aiming to bring language learning into the vast opportunities of the twenty-first century by training language teachers to use openly accessible, cutting-edge technology in their classes.

This dissertation will discuss the ambitious project and analyse the viewpoint of the trained educators on the programme. We will first evoke the affordances of technology for second language acquisition, and then emphasize the potential of shared, freely accessible online educational resources. We will then focus on whether these are currently present in the educational landscape of French-speaking Belgium, both in terms of schooling and teacher training.

The second part of this paper details the training module per se, and describes the type of feedback gathered from its trainees, which is analysed first in quantitative then in qualitative terms. Finally, we offer a more personal take on things by putting the programme into perspective with several theoretical models on using technology and open access resources in education. Will this inspiring European collaboration push back the limits of language education and foster new practices among the teachers of the twenty-first century?

¹ The limits of my language are the limits of my world

ABBREVIATIONS & DEFINITIONS

Abbreviations

Be de	German speaking Belgium
BE fr	French speaking Belgium
BE nl	Dutch speaking Belgium
CECAFOC	<i>Centre catholique pour la Formation en cours de carrière</i>
CECP	<i>Conseil de l'enseignement des communes et des provinces</i>
CPD	Continuing Professional Development
CPEONS	<i>Conseil des Pouvoirs organisateurs de l'Enseignement officiel neutre subventionné</i>
DDL	Data-driven learning
ESL	English as a second language
FCC	<i>Formation en cours de carrière</i>
FELSI	<i>Fédération des Etablissements Libres Subventionnés Indépendants</i>
FoCEF	<i>Formation des enseignants du fondamental ordinaire et spécialisé</i>
FWB	<i>Fédération Wallonie-Bruxelles</i>
HE	Higher education
HEA	Higher education academy
ICT	Information and communications technology
IFC	<i>Institut de la Formation en Cours de Carrière</i>
IPR	Intellectual property rights
L2	Second language
NLP	Natural language processing
OER	Open educational resources
P1 > P6	First to sixth year of primary school
<i>Pacte</i>	<i>Pacte pour un enseignement d'excellence</i>
REL	<i>Ressources éducatives libres =OER</i>
PLC	Professional learning community
POS	Part of speech
S1 > S6	First to sixth year of secondary school
SLA	Second language acquisition
SNS	Social networking services
SWOT	Strengths weaknesses opportunities and threats
TCK	Technological content knowledge
TEL	Technology enhanced learning
TIC(E)	<i>Technologies de l'information et de la communication (pour l'enseignement) = ICT</i>
TPACK	Technological pedagogical content knowledge
WBE	<i>Wallonie-Bruxelles Enseignement</i>

Definitions

Digital literacies	<p>‘the individual and social skills needed to effectively interpret, manage, share and create meaning in the growing range of digital communication channels.’ (Dudeney, Hockly, & Pegrum, 2013, Chapter 1, p. 6)</p>
ISCED	<p>‘ISCED is the reference international classification for organising education programmes and related qualifications by levels and fields.’ ‘ISCED 2011 has nine levels of education, from level 0 to level 8 (tertiary education is more detailed):</p> <ul style="list-style-type: none">- ISCED 0: Early childhood education (‘less than primary’ for educational attainment)- ISCED 1: Primary education- ISCED 2: Lower secondary education- ISCED 3: Upper secondary education- ISCED 4: Post-secondary non-tertiary education- ISCED 5: Short-cycle tertiary education- ISCED 6: Bachelor’s or equivalent level- ISCED 7: Master’s or equivalent level- ISCED 8: Doctoral or equivalent level’ (Eurostat, n.d.)
Web 2.0	<p>‘a new generation of web-based tools like blogs, wikis and social networking sites, which focus on communication, sharing and collaboration, thus turning ordinary web users from passive consumers of information into active contributors to a shared culture.’ (Dudeney et al., 2013)</p>

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PART I – THEORY

SECOND LANGUAGE ACQUISITION, ICT & OER

1. Information and Communication Technologies (ICT) and Second Language Acquisition (SLA)

1.1. ICT & language – for richer or poorer?

[...] is a great evil. There is no measure or limit to this fever for writing; everyone must be an author; some out of vanity, to acquire celebrity and raise up a name; others for the sake of lucre and gain. (Luther, 2017, 911)

However appropriate to modern technologies Martin Luther's comment might seem, it was actually aimed at the "multitude of books" brought to the world by Gutenberg's printing press, which Luther feared would 'divert men's thoughts from the one great book, the Bible' (Luther, 2017, 911). Socrates considered writing to be a danger to man's capacity for memorization and discussion (Dudeney, Hockly, & Pegrum, 2013, Chapter 1, p. 2) whereas the following warning can be found in King James's Bible: "of making many bookes there is no end, and much studie is a wearinesse of the flesh." ('Official King James Bible Online', Ecclesiastes 12:12)

Throughout history and along with each new communication medium came criticism of many kinds. Dudeney, Hockly and Pegrum (2013, Chapter 1, pp. 3-5) list the various grievances attributed to postcards, the telephone, comic books, television, CDs and mobile phones, all of which were deemed to lead to improper social contacts, delinquency or a general deterioration of their users' intelligence. Modern technologies have naturally not been spared and contemporary telecommunication networks such as e-mails, chat, YouTube, Facebook, Twitter or Wikipedia are subject to criticism in terms of their power to influence and deplete the formerly ever so rich soil of human language and communication.

Despite these numerous allegations, James Gee and Elisabeth Hayes actually dare to cast a positive light on ICT, labeling them "power-ups" for language and arguing that '[l]anguage has always been "multimodal" (combining words, images, and sounds) as are many messages conveyed via digital media and, indeed, many other media today.' (Gee & Hayes, 2011, p. 1)

They then go on to point out that, although multitasking may seem to be the prerogative of the so-called “digital natives”, the act of speaking has always required the simultaneous use of several skills. ICT should therefore be considered as a natural evolution of language rather than a revolution in itself and one should appreciate what it brings to languages and communication in general.

1.2. A complex set of skills

Gee and Hayes (2011, p. 2) highlight how natural multitasking has been part of human life since the dawn of time; hunters and gatherers already had to deal with several tasks at a time. They however concede that multitasking is now required more than ever before and ‘the ability to know how, when, and where to multitask is becoming paramount.’ (Gee & Hayes, 2011, p. 2) Mark Pegrum’s (2011, p. 19) pluralized notion of literacy as an ‘explosion [...] driven by social media’ further opens the field for a set of skills that cannot be conceived individually but rather as “social practices”. (Dudeney et al., 2013, Chapter 1, pp. 6-7.)

Vandergriff (2016, p. 22) envisages the “social web”, i.e. web 2.0, as a structure that transforms “consumers” into “actors”. According to him, web users do not only passively consume content, they are made to participate and interact as they are encouraged to write, share, link and appraise web content through various channels.

Among other complex competencies Dudeney, Hockly and Pegrum (2013, Chapter 1, p. 6) stress the emergence of two particular social skills of the 21st century. On the one hand learners can now benefit from the creation of “personal learning networks” or ‘collaborative project[s] based on collective intelligence’ (Dudeney et al., 2013, Chapter 1, p.3). The authors take the concept one step further by highlighting the fact that each student is now part of a larger, global network, evolving as a global citizen who needs to be able to negotiate intercultural differences. In such a context, digital literacies and languages are intricately linked to form the ultimate tool of communication.

One might assume that “digital natives”, as the name implies, have a natural propensity for ICT, given that they were practically born with a smartphone at the tip of their finger. Dortier’s article in *Sciences Humaines* magazine lays to rest this common misconception when he states that: ‘*Le cerveau des enfants n'est pas plus adapté aux technologies numériques que celui des*

femmes à comprendre un programme de machine à laver et d'un homme à décapsuler une bouteille de bière. Cela ne demande aucune mutation cérébrale.' (Dortier, 2013) He further argues that millennials, like every other human being, recycle rather than mutate parts of their brain to be able to perform tasks in a computerized environment. The challenge thus remains significant for the young inhabitants of our “global village” to assimilate the necessary skills to play their role in the world.

1.3. Too complex to assess?

Dudeney, Hockly and Pegrum (2013, Chapter 2, p. 2) cautiously warn their readers that the evidence gathered so far as to whether learning and teaching are improved by the use of ICT remains elusive. Researchers suggest that the use of traditional assessment methods, such as an exam focused on print literacy, are actually not appropriate to appraise digital literacy skills. Furthermore, evaluating competencies, such as “being an active member of a learning network” or “communicating as a global citizen taking intercultural matters into account” can only be as complex as the skills themselves. The authors nonetheless dare state that “[f]or our language teaching to remain relevant, our lessons must encompass a wide variety of literacies which go well beyond traditional print literacy.” (Dudeney et al., 2013, Chapter 1, p. 11) Likewise, Vandergriff reports the researchers and policy makers’ keen interest in the ‘expanded role of technology in language teaching and learning.’ (Vandergriff, 2016, p.1)

Encouragingly, when researchers do reach significant conclusions on the use of ICT in the classroom they tend towards positive results. (Russel, n.d.) The US Department of Education conducted a review of more than 1,000 studies, concluding that ‘classes with online learning (whether taught completely online or blended) on average produce stronger student learning outcomes than do classes with solely face-to-face instruction.’ (Means, Toyama, Murphy, Bakia, & Jones, 2009, p. 18) In conclusion, despite the intricacy of modern ICT skills and of their assessment, they are inextricable from the language teaching and learning of our globalized world of the 21st century.

1.4. ICT & SLA – for better

Vandergriff (2016, pp. 22-23) details numerous advantages to using ICT in language learning. From a strictly technical perspective, for instance, he highlights the fact that it allows learners to receive immediate feedback on self-correcting exercises. The author also points out the assets of multimodality in language learning, i.e. a combination of 'media such as written and spoken text, body language (including gestures), as well as graphic (e.g., charts, tables), visual (e.g. video clips, images, "like" buttons), and/or spatial systems (e.g., maps).' (Vandergriff, 2016, p. 46) According to him, technology may also insure motivation for learners in that the system can identify the appropriate level of difficulty based on the student's performance and then propose adapted exercises, which are not too complicated while remaining challenging. Finally, Vandergriff praises the 'easy, convenient, and instantaneous access to authentic language' (Vandergriff, 2016, p. 23) provided by ICT, which counterbalances and revitalizes the artificial setting of language classrooms.

Beyond the indisputable technological advances described above, ICT brought along another essential revolution in language learning; an unprecedented sense of community engagement. Vandergriff highlights online collaboration as one of the 'most consistently demonstrated benefits of digital tools [... ,which creates] favorable language-learning conditions' (Vandergriff, 2016, p. 19) by encouraging students to project themselves as future L2 users. The researcher specifies that learners usually improve in the foreign language no matter whether they are evolving in a learning or non-learning online environment. (Vandergriff, 2016, p. 8)

In spite of the atmosphere of mistrust reigning over any technological advancement of language for millennia, ICT has cemented itself as a complex and indispensable tool of language learning, bringing in communication into the 21st century.

2. Open educational resources (OER)

2.1. OE-what?

In 2002 the UNESCO held a 'forum on the impact of open courseware for higher education in developing countries', at which the participants coined the term: "open educational

resources". The following statement was annexed to the final report, outlining their ambitious project:

At the conclusion of the Forum on the Impact of Open Courseware for Higher Education in Developing Countries, organized by UNESCO, the participants express their satisfaction and their wish to develop together a universal educational resource available for the whole of humanity, to be referred to henceforth as Open Educational Resources. Following the example of the World Heritage of Humanity, preserved by UNESCO, they hope that this open resource for the future mobilizes the whole of the worldwide community of educators. (UNESCO, 2002, p. 28)

On that day a group of people had launched an idealistic and global initiative to fuel the world with universally accessible educational resources, currently defined by the UNESCO as follows:

Open Educational Resources (OER) are any type of educational materials that are in the public domain or introduced with an open license. The nature of these open materials means that anyone can legally and freely copy, use, adapt and re-share them. OER range from textbooks to curricula, syllabi, lecture notes, assignments, tests, projects, audio, video and animation. (UNESCO, n.d.)

Masterman and Wild (2011, p. i) describe OER as standing on the complimentary concepts of "sharing" and "reuse". If one wishes to investigate teachers' traditional attitude towards those key ideas, one might find, as Lane and McAndrew (2010, p. 5) suggest, that educators typically used to share their work with a limited community of peers, within their own discipline, therefore limiting to an extremely small extent the discoverability of new sources. The advent of open educational resources consequently brought about a Copernican revolution to the world of teaching, opening the road to new technologies, contents, pedagogical methods, etc. 'Open access to OER, moreover, enable[d] teachers easily [sic] to use someone else's resource in their teaching, rework other people's material, and even co-create (or remix) materials with others.' (Beaven, 2013, p. 60)

The European Commission's report on innovative teaching brilliantly bridges the opportunities offered by new technologies and the ones afforded by OER. When combined with open learning environments, they allow for an integrated approach, which focuses on learners and educators, rather than on the subject or technicalities – cf. Figure 1. The report then lists the numerous advantages of resorting to OER, i.e. '[they] increase the quality, reduce the costs and the time

lag between production and use of resources. Learning becomes more personalised, interactive and collaborative.’ (European Commission, 2013, p. 9)

The same report however raises a number of unsolved questions regarding OER, which might explain a lack of use despite a general enthusiasm, as will be discussed in sections 3.3 and 4.1;

1. Low use of OER for innovative learning
2. OER supply is currently fragmented
3. OER supply is not quality assessed
4. OER opens up education towards informal learning but educational practices are not in line with the increasing OER supply
5. Lack of appropriate business models for OER
6. OER and publishers: opportunity or threat? (European Commission, 2013, p. 30)

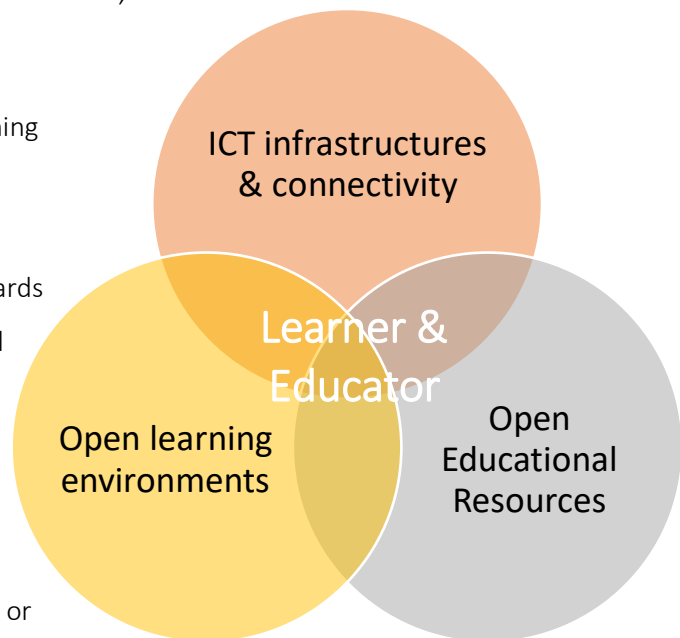


Figure 1: An integrated vision and approach (European Commission, 2013, p. 9)

2.2. Little/big OER

In her interactive mind-map review of the existing literature on the matter, Joanna Wild (n.d.) distinguishes between little and big OER. The former referring to individuals, in this context teachers, who share their own productions, and presenting the advantage of being cheap, easy to produce and to reuse. Their quality and reputation can nonetheless be hard to ascertain. As for big OER, they are emitted by reputable institutions through large scale projects, which account for a generally better quality. The limited reusability and price of such big open educational resources might however be construed as a hindrance to their dissemination. (Weller, n.d.)

2.3. So much (unnoticed?) potential

Lorna Campbell from the University of Edinburgh is full of praise for OER. Despite her higher education background, she lists advantages, which can apply to all levels of education. We have listed the following from her presentation on the OER day at Université Catholique de Louvain:

- OER ensure longevity of access: clear and unambiguous licensing allows the institution to continue using the resources. If an employee leaves the University, they still have access to their resources.
- MOOCs are locked into platforms with access for a limited amount of time. OER are available for free and all the time.
- OER diversify the curriculum. e.g. Skills on how to treat LGBT patients
- OER improve digital skills for staff and students, exposing learners to a wide range of digital tools.
- OER engage students in the course creation of their own experience. e.g. science engagement, e.g. resource on sea-level story, GeoScience
- OER promote engagement with the output of open research. e.g. video interviews, etc.
- OER contribute to the development of open knowledge. e.g. Wikipedia
- OER enhance engagement with content and collections

2.3.1. OER and teachers

Research has shown that, although they can grasp the potential of OER, teachers are reluctant to actually use them. (Pérez-Paredes, Ordoñana Guillamón, & Aguado Jiménez, 2018) According to Masterman and Wild (2011, p. ii), teachers' conceptualisation of open educational resources remains vague, particularly when it comes to the notion of Creative Commons licensing. These trends emerged from their study compiling information from interviews, focus groups, an online survey and workshops among OER novices, OER experts and OER strategists, i.e. people implementing and OER strategy in their institution. Besides, Conole (Conole, 2010) argues that teachers lack technological skills and can be overwhelmed by the infinite amount of tools that are openly available to them. The author implies that educators are heavily anchored in the routine of their own pedagogical methods and therefore rarely venture out of their comfort zone to discover new resources.

Yet, Masterman and Wild's study on the use of OER by HE teachers has nothing but praise for the possibilities that the open resources bring to educators. As a summary of their findings, they have drawn the following list of advantages to the use of OER for teachers:

- Enabling resources to be seamlessly integrated into students' learning environments;
- Addressing learners' specific needs through providing opportunities for supplementary learning, skills development and presenting content in different ways to address students' interests and preferences;
- Saving teachers effort, through enabling them to offer their students learning materials and TEL activities where they lack the skills or the means to create these themselves;
- Benchmarking their own practice in terms of content, approach and general quality;
- Enabling them to teach topics that lie outside their current expertise;
- Stimulating networking and collaboration among teachers;
- Improving possibilities for new collaborations in researching fields of common interest. (Masterman & Wild, 2011, p. ii)

It seems the hidden or unrecognized potential of OER only awaits to be brought to light in front of oblivious teachers, so that the world of education can rise to the challenges of the third millennium.

2.3.2. OER and learners

After having compiled the results from focus groups held with 17 students in three contrasting HE institutions, Masterman and Wild identified a limited awareness of OER among learners, as well as a poor understanding of the concept of IPR. These results substantiate the similar findings about teachers' awareness and use of OER. The authors saw the following trends emerge from the students' attitude during their study:

- A preference for online over printed materials, and materials that are up to date;

- Appreciation of the 'walled garden' of online resources provided by their teachers, but a continuing need for training in searching for and evaluating online materials (information literacy);
- Reluctance to make their own work publicly available on the Web, especially where it is formally assessed. (Masterman & Wild, 2011, p. ii)

Despite the learners' lukewarm response to the idea of open educational resources, several benefits can be drawn from open resources, particularly for students. On the one hand, OER allow for more customized content, as well as a richer, more interactive experience for each learner. By presenting the same information on various media, teachers also have the possibility to provide for different learning styles. Moreover, the use of these resources intrinsically fosters the acquisition of lifelong learning skills, implying that everyone can search for and access quality information on the web. (Masterman & Wild, 2011, p. 17) Finally, the authors highlight the fact that OER make room for 'supplementary learning outside the classroom, preparation, practicing, reinforcement and revision of skills' (Masterman & Wild, 2011, p. 24). Although students seem to moderately adhere to the concept of OER, their advantages to learners in all contexts no longer need to be demonstrated.

2.4. Open... to modifications

As stated above, research shows how seldom teachers generally make use of OER. However, a discipline-specific qualitative study by Beaven (2013) on eight language teachers for beginners in French, Spanish and Italian at the Open University produced different results. According to her findings, teachers engage in OER use and reuse in various forms, including:

- getting inspiration from existing resources (sometimes in other languages or at other levels) in order to create new ones;
- making some small changes to the OER to make them more attractive/personalise them (e.g. changes to design, font, photos, colours);
- making some small changes to the OER by adding key language expressions or structures to provide additional support to students. (Beaven, 2013, pp. 64-65)

Beaven also found that teachers tend to transform some resources' pedagogical aim, whether it be planned or improvised on the spot, to cater for their students' particular needs. Masterman and Wild's findings (2011, p. iii) withal stress how much teachers value freedom and flexibility with a view to appropriating OER to their own teaching context. The following statement from a language teacher attests to her wish to be able to modify the content of ready-made resources and the reason why:

Well, because we all have different groups, we have [students of] different abilities, we know our groups, we know what they need, we get to know our students, we know how they work, we know the level of the group, so you change, you always hae [sic] to change a little bit, adapt a little bit... (Beaven, 2013, p. 67)

Further investigation, however, led Beaven to conclude that, after modifying OER, teachers were reluctant to post their improved version of the resource online. Despite their positive perception of the concept of sharing, they invoked 'lack of time, worries about copyright, concerns about sharing with strangers and worries about appearing vain or arrogant in front of colleagues' (Beaven, 2013, p. 67). Several teachers favored a more "intimate" type of sharing, i.e. with close colleagues or with their own students. Beaven appears to have uncovered a trend among users of OER to (unfortunately) maintain a unilateral approach to sharing, thus limiting the expansion of resources.

3. ICT & OER at school

3.1. A black sheep in the European landscape?

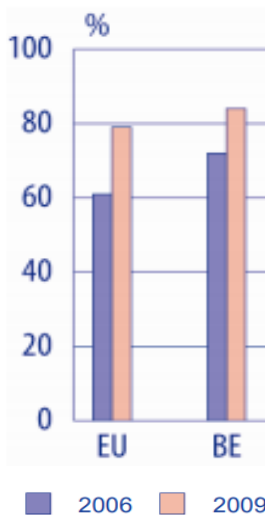


Figure 2: Households with dependent children that have home internet access (Eurydice, 2011, p.22)

With a view to placing (French speaking) Belgium in a broader context, we will rely on two reports issued by the European commission, respectively on 'learning and innovation through ICT' (Eurydice, 2011) and 'teaching languages at school' (2012) in Europe. If French speaking Belgium emerges as one of the best regions of Europe in terms of access to ICT, it however fails to impress with its results on the actual use of information and communication tools within its schools, specifically in language classes.

As Figure 2 demonstrates, 84% of Belgian households with dependent children had an internet access in 2009, which is slightly higher than the European average of 79%.

It seems the FWB encourages the development of ICT since public funds are allocated to buy education-related ICT equipment in the form of tax relief for parents (cf .Figure 3) and direct support for ICT actions in education in general (cf. Figure 4).

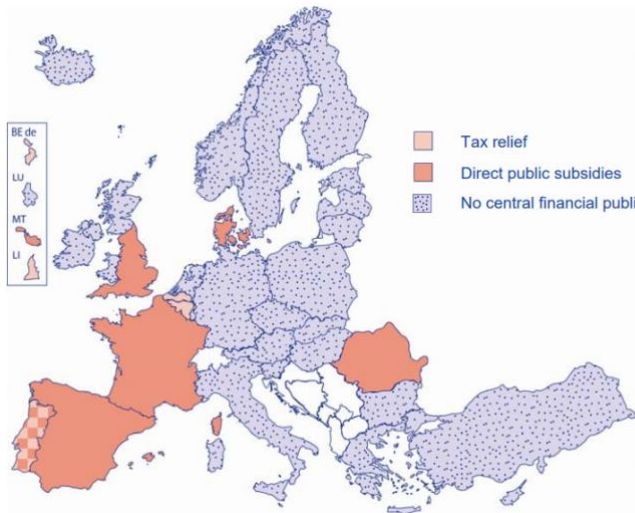


Figure 3: Financial public support for parents for buying education-related ICT equipment, 2009/2010 (Eurydice, 2011, p. 21)

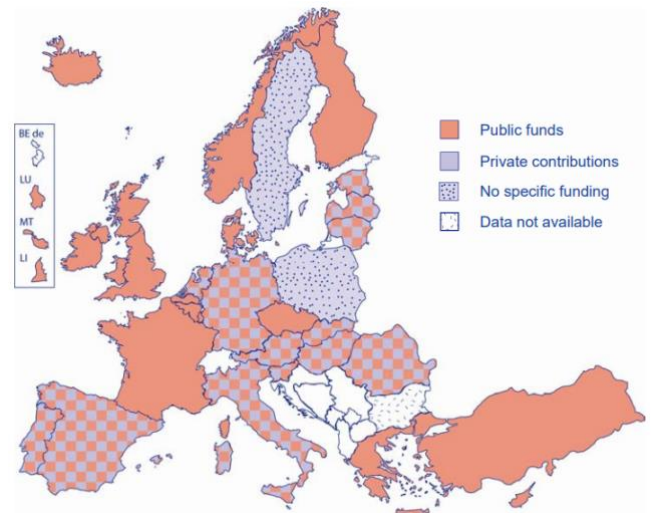
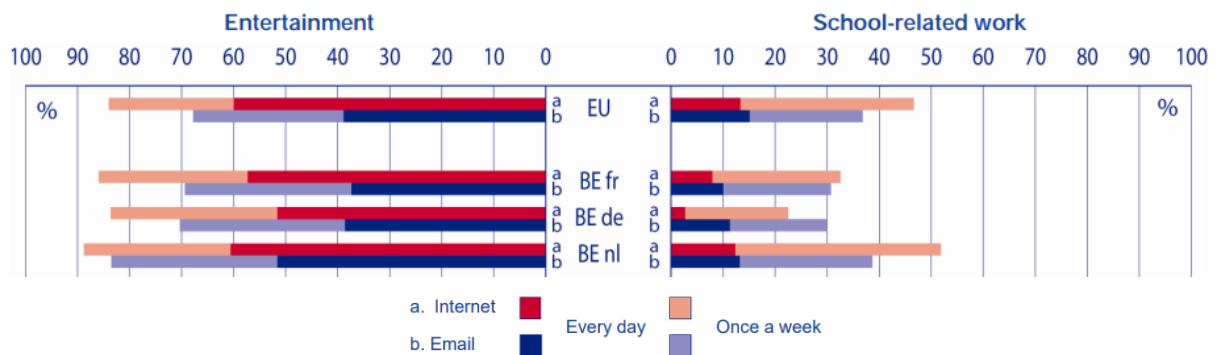


Figure 4: Funding of ICT actions in education, 2009/2010 (Eurydice, 2011, p. 32)

When it comes to surfing the web however, young French speaking Belgians seemingly prefer to entertain themselves, rather than work for school. Indeed, while 57.3% browse the web every day – against a European average of 60% – only 7.9% do so with an educational objective in mind. Almost twice as many European 15-year-olds – 13.3% – use the web for school on a daily basis. (cf. Figure 5)



Browse the Internet for fun			Use email				Browse the Internet for schoolwork			Use email for communication with other students about schoolwork		
Once a week	Every day	>1 / week	Once a week	Every day	>1 / week		Once a week	Every day	>1 / week	Once a week	Every day	>1 / week
24.0	60.0	84.0	28.9	38.9	67.8	EU	33.3	13.3	46.7	21.7	15.1	36.8
28.6	57.3	85.9	32.0	37.4	69.4	BE fr	24.7	7.9	32.6	20.7	10.0	30.7
32.0	51.6	83.6	31.7	38.6	70.3	BE de	19.8	2.7	22.5	18.8	11.3	30.1
28.2	60.6	88.8	31.9	51.6	83.5	BE nl	39.5	12.3	51.9	25.5	13.2	38.7

Figure 5: Use of computers at home by 15 year-old students for entertainment and school related work, 2009 (Eurydice, 2011, pp. 25-26)

The analysis of central steering documents for education across Europe (cf. Figure 7) leaves French speaking Belgium with a relatively bad report card. Contrary to many of its European neighbours, the FWB only sets a few ICT learning objectives for secondary schools, and even fewer for primary education establishments. A quick glance at **Error! Reference source not found.** s

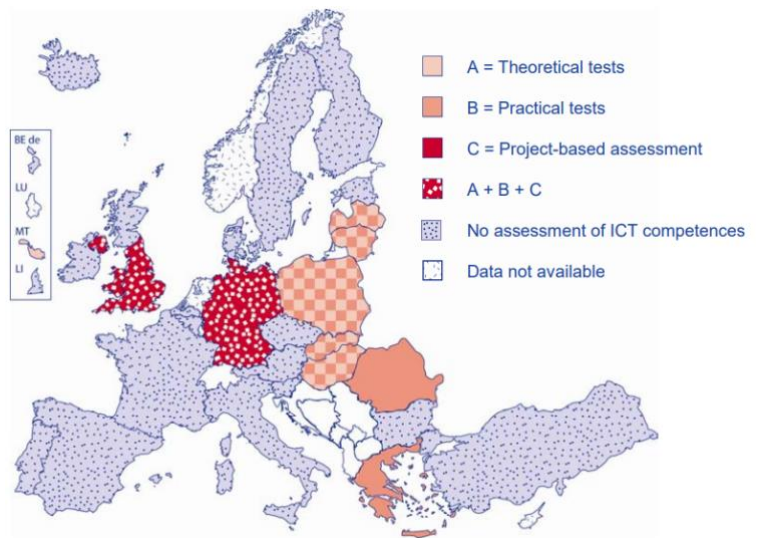


Figure 6: Assessment of ICT competences in school-leaving examinations at the end of compulsory education, 2009/2010 (Eurydice, 2011, p. 61)

shows a blatant lack of assessment of ICT competences in school-leaving examinations at the end of compulsory education all over Europe. Some countries, such as Germany, the United Kingdom and Poland for instance, manage to assess their pupils' mastery of ICT through theoretical and practical tests, or even through projects. The FWB, unfortunately, is not one of them. A deeper investigation of ICT in French speaking Belgium's school curricula will be displayed in section 3.2.

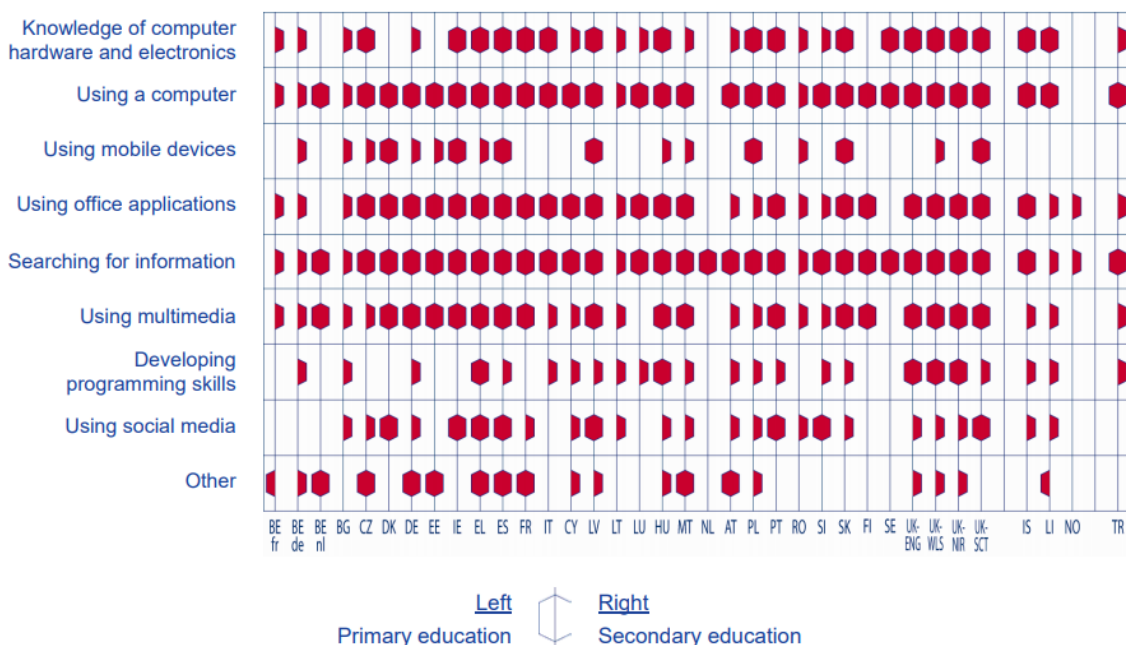


Figure 7: ICT learning objectives in central steering documents for primary and general secondary education (ISCED 1, 2 and 3), 2009/2010 (Eurydice, 2011, p. 39)

Finally, when digging deeper into the specific use of ICT in language classes, one uncovers some discrepancies. According to the official steering documents in the FWB, educators are expected to use ICT to teach foreign languages both in primary and in secondary schools (cf. Figure 9). Nonetheless, the pupils' perception contradicts the theoretical data since only 3.3% of them declare they use the internet frequently in their language classes, against 18.4% for the European average (cf. Figure 8).

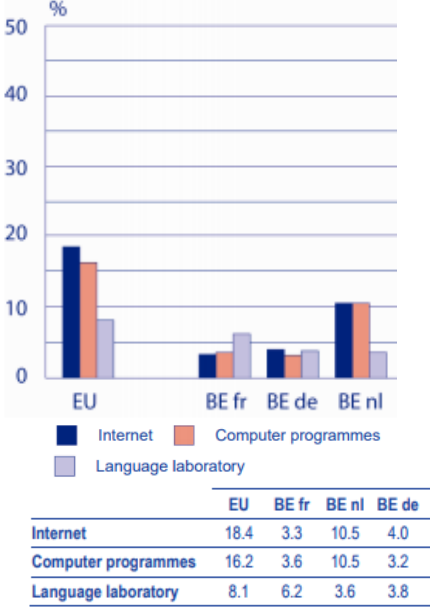


Figure 8: Percentages of students who say that ICT is regularly used during their language lessons, 2010/2011 (Eurydice, 2012, p. 107)

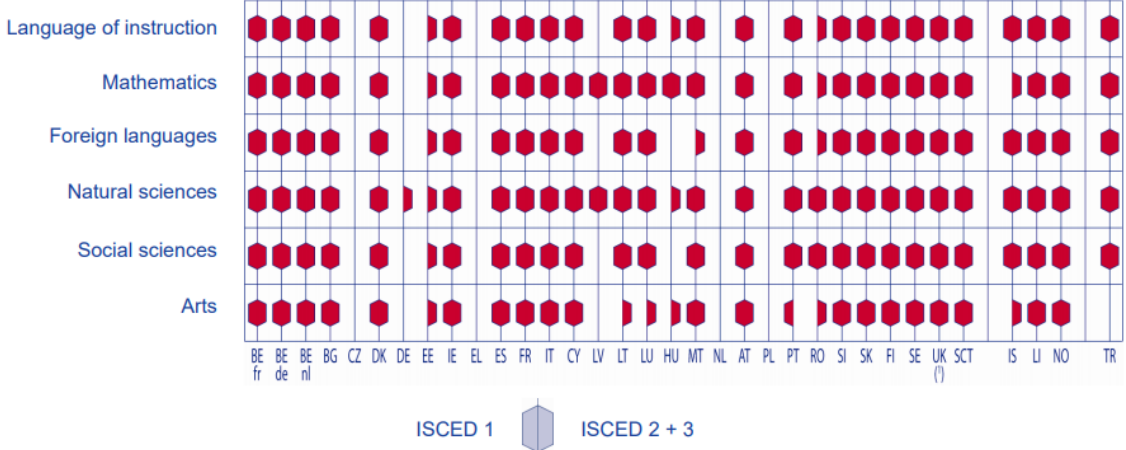


Figure 9: Teacher use of ICT by subject area according to official steering documents in primary and general secondary education (ISCED 1, 2 and 3), 2009/2010 (Eurydice, 2011, p. 47)

3.2. In French speaking Belgium

Educational policies in Belgium have been the prerogative of linguistic communities – Flemish and French speaking – since the third State reform in 1988. (Parlement de la Fédération Wallonie-Bruxelles / Communauté française, n.d.) Only three items remain in the State’s jurisdiction; the age limits of compulsory education, the minimal conditions for awarding diplomas and teachers’ pensions. (Romainville, 2012, p. 286) Our discussion will focus on the French speaking community, i.e. *Fédération Wallonie-Bruxelles* (FWB), thus in charge of all educational policies but the above-mentioned ones in the French speaking part of Belgium – i.e. Brussels and Wallonia.

3.2.1. ICT & language curricula

The next segment details the legal landscape in terms of language education in French speaking Belgium, with a particular focus on ICT. First, we will summarize the existing material, then we will offer a glimpse of the upcoming school curricula. Each section is then subdivided into the general framework of reference for the entire French speaking community and the specific programs issued by both the State and the so-called “free Catholic network” of education. The *FELSI*, a third actor in the French speaking Belgian education landscape, has not produced any language programs to date.

Up to 2017 – the big void?

In the following section we will address the current school curricula. The information is organized according to the name of each official document and the school years to which it applies. The FWB is in the process of creating new programs, which we will deal with in the next segment.

School years² Name of the document

P1 > S2 Socles de compétences

This document serves as a frame of reference for all language teachers in the first 8 years of compulsory education. It divides modern language education into four main communicative skills, i.e. listening, speaking, reading and writing. This particular programme sets global aims for language education and does not refer to ICT in any way. (Enseignement et recherche scientifique, FWB, n.d.)

P1 > S2 Programme intégré – adapté aux Socles de compétences

In accordance with the *Socles de compétences*, the « free Catholic network » (*réseau libre confessionnel catholique*) has written its own interpretation of the program. It refers broadly to technology, the internet and media education but when it comes to languages, no explicit link is made between ICT and the pupils' mother tongue or any modern language. (Fédération de l'Enseignement Fondamental Catholique, 2000) We note that the State programs do not extend to primary education in terms of languages.

S6 Compétences minimales en matière de communication

(objectives) en langues modernes

This programme sets objectives for pupils at the end of compulsory education, i.e. 18 years-old. Similarly to the *Socles de compétences*, this document divides language competencies into four communicative skills (cf. supra) and sets general goals, none of which touch upon ICT. (Ministère de la Communauté française, 1999) The FWB differentiates between general and vocational education in terms of final objectives. Both programs, however, make no mention of ICT. (Ministère de la Communauté française, 2000)

S1 > S6 Programmes d'études des cours de langues germaniques

To supplement the general framework of reference, the *Ministère de la Communauté française* has issued detailed language programs. The latter,

² P = primary school (from 1st to 6th form), S = secondary school (from 1st to 6th form)

contrary to all the material we have investigated, does give room to ICT with a specific section on the following:

- word processing
- CD-Roms
- the Internet
- other interactive functions
- scenarios of use
- videos (Administration Générale de l'Enseignement et de la Recherche Scientifique, 2000)

S1 > S6 Programmes langues modernes

When adapting the above-cited general framework of reference to its own programmes, the “free Catholic network” further details how teachers must implement the four communicative skills (cf. supra). ICT are once again nowhere to be found. (Fédération de l'enseignement secondaire catholique, 2000)

Upcoming curricula – a beacon of hope

In 2015 the Minister for Education of the *Communauté française de Belgique* instigated a vast reformation project to improve the quality of education in French speaking Belgium – the *Pacte pour un enseignement d'excellence*. Many initiatives and legal documents are currently being produced within the framework of this ambitious enterprise. In the coming section we will attempt to glimpse the future of pupils in Wallonia and Brussels and identify the space taken up by ICT the language programs to come.

The first steps of this *Pacte* consisted in observing the current practices and gathering testimonials from the grassroots actors of education. We will take a closer look at two reports about motivation and the use of ICT at school.

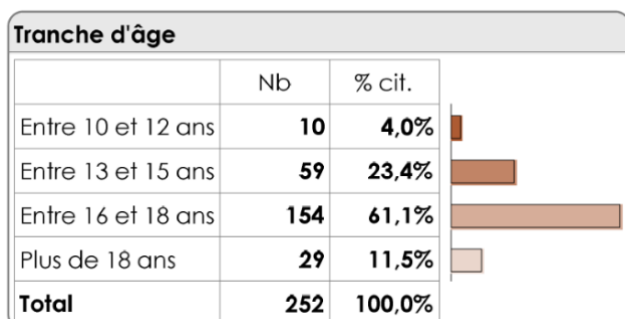


Figure 10: Age of the respondents (*Pacte pour un enseignement d'excellence*, 2016, p. 1)

The first report was based on an online poll conducted between September 2015 and January 2016 among more than 250 youngsters – cf. Figure 10 – most of which were following a secondary school curriculum – cf. Figure 11. The results show the undeniable popularity of ICT amid pupils, since a vast majority of the

respondents considered them to be motivating – 82.4% – and interesting – 87.6%. (*Pacte pour un enseignement d'excellence*, 2016b) The pupils also appreciated the opportunities afforded by ICT, i.e. making the teacher more available – 66.5% – allowing each student to learn at their own pace – 69.9% – providing exercises, which are adapted to each learner's level – 73.2% – and which are more interesting – 75.4%. (*Pacte pour un enseignement d'excellence*, 2016b, p.6)

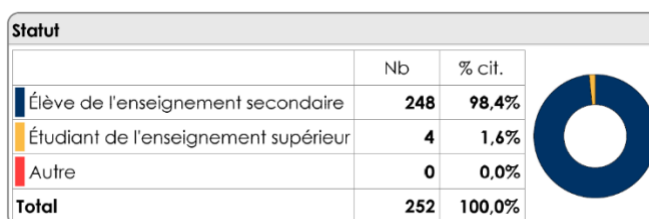


Figure 11: Status of the respondents (*Pacte pour un enseignement d'excellence*, 2016, p. 1)

A second report was issued based on a similar type of online poll conducted in the same period among 123 teachers of both primary and secondary education. Astonishingly, teachers seem to attribute less prominence to ICT in their classrooms, based on their assumption that they are only moderately motivating. Indeed, only 56.7% of the respondents considered that allowing their pupils to work on a tablet could be a motivating factor. (*Pacte pour un enseignement d'excellence*, 2016a) The results from the first report sadly corroborate this lack of enthusiasm from educators as only 13.7% of the pupils report that they are allowed a weekly access to the web in the classroom, and 21.4% in a computer lab as part of their class activities. (*Pacte pour un enseignement d'excellence*, 2016b)

Based on these observations – inter alia – the Ministry commissioned working groups to reflect on a way to improve education in French speaking Belgium. One of these working groups was appointed the very specific task of “managing the digital transition” in the FWB's schools,

focusing on two objectives; deploying digital infrastructures and adapting the content, pedagogy and learning processes of the actors of education and the learners to the digital world. (Pacte pour un enseignement d'excellence, 2015a) It seems the FWB is determined not to miss the boat and to bring on – the digital – board its next generation of pupils and teachers.

Three official advice notes have been published by the central working group of the *Pacte* thus far. For the purpose of this dissertation, we will only address the latest one, focusing on ICT and languages. The document is quite clear on the strong relationship that should be forged between the FWB's schools and ICT; the role of educational establishments is to elicit and support the development of 21st century skills beyond the purely technical aspects of technology, reaching social and informational considerations:

Le rôle de l'école est, entre autres, celui de susciter et d'accompagner au mieux le développement des compétences nouvelles que la culture numérique induit, dépassant les considérations uniquement techniques, et touchant également aux sphères sociales (modalités de communication multiples, multipoints, potentiellement permanentes, plus horizontales que verticales, etc. ?) et informationnelles (l'information est disponible plus rapidement, de façon permanente, sous des formes diversifiées, par chacun, etc.).

The Central working group goes on to insist on the difference between educating pupils on ICT or through them, which schools will both need to accomplish. Indeed, the *Pacte* ambitions to integrate the use of new technologies within the traditional school subjects, but also to educate youngsters on why and how to navigate the infinite network of the web. Teachers will then have to tackle topics, such as managing your online identity or building a learning space on social networking sites. (Pacte pour un enseignement d'excellence, 2017, p. 90) The exact practicalities of the implementation phase of this massive project are still being discussed. In the meantime the Ministry for Education has already commissioned consortia to identify and develop learning devices for each of the existing school subjects. One particular consortium has been assigned the specific task to ensure digital tools are included in each topic. The central working group also mentions its recommendations regarding teacher training, which we will deal with in section 4.2.

3.2.2. History of ICT initiatives in the FWB

Despite the late awakening of the FWB with regards to the upgrading of its school programs, several initiatives had already been implemented in French speaking Belgium long before 2017. In the following section we will attempt to draw a historical portrait of the gradual incorporation of ICT into educational policies in French speaking Belgium. All this information is made available via the FWB's web portal for education and ICT. (Fédération Wallonie Bruxelles, n.d.-c)

1998 The *Cyber-écoles* project aimed at equipping a vast number of schools – *Cyber-écoles* 1791 primary, 435 secondary education establishments and 105 so-called “social advancement” schools – with computers. (Agence du Numérique, Wallonie, n.d.-b) The scheme also included an offer for schools to install an internet connection for about an eighth of the estimated cost, i.e. 20,000 BEF (= 500 EUR) instead of 160,000 BEF. Two years later, that price was reduced to 9,917 BEF. (Fédération Wallonie Bruxelles, n.d.-a)

2003 Since 2003, the FWB has provided teachers with ready-made *Passeport TIC* pedagogical resources to progressively teach young pupils how to navigate the web. (Fédération Wallonie Bruxelles, n.d.-b)

2005 The successor of the *Cyber-écoles* project was born in 2005 with yet *Cyberclasse* more ambitious targets, aspiring to ensure the presence of one recent computer per 15 pupils. With a total budget of 85,000,000 EUR, the actors of *Cyberclasse* achieved the following:

- 40,000 computers
- in 3,354 establishments
- for 580,000 pupils (Gouvernement Wallon, n.d.)

2005 The initiative for European exchange programs saw the light of day in *eTwinning* 2005 as part of the European Commission's eLearning Programme. It

has now grown to become part of the Erasmus+ project and ‘offers a platform for staff (teachers, head teachers, librarians, etc.), working in a school in one of the European countries involved, to communicate, collaborate, develop projects, share and, in short, feel and be part of the most exciting learning community in Europe.’ (‘eTwinning’, n.d.) The FWB website directs visitors to the eTwinning platform.

2011 After having focused on material, the FWB decided to go one step further and launched its *Ecole numérique* initiative to stimulate innovative uses of ICT in all forms of education. Between 2011 and 2016, *Ecole numérique* elected and funded 300 different projects promoting the use of technology in the classroom. (digitalwallonia.be, n.d.)

2015 The Walloon Minister for economy, industry, innovation and ICT issued a comprehensive report in 2015, in which he summarized his ambitions for a competitive, ICT-skilled Wallonia (the French speaking region of Belgium). Education appears as one of the five flagship poles, along with the mention of an intention to integrate classes on ICT in primary and secondary school curricula. (Marcourt, 2015, p. 13)

2015 In 2015, with the support of its Minister for education and of the *Cellule A la conquête des projets TICE*, the FWB published a guide destined to all the professionals of education – inter alia school directors and teachers – on how to integrate social networks into education. (Fédération Wallonie Bruxelles, 2015)

2016 Within the framework of its digital strategy, Wallonia has launched the *Digital Wallonia* initiative to support 500 projects each year. The global aim of such endeavours is to foster the rooting of pedagogical practices exploiting or educating about ICT. (Agence du Numérique, Wallonie, n.d.-a)

2016 Osons la collaboration numérique 2016 seems to have been a prolific year in the digital landscape of Wallonia as it saw the birth of a specific brief on the benefits of ICT on introducing collaborative practices and skills at school. (Fédération Wallonie Bruxelles, 2016b)

2016 Le numérique et les troubles de l'apprentissage The FWB displays specific information on its portal, detailing the possibilities that ICT offer when dealing with pupils with learning disabilities. The website also points its users towards external resources on the matter. (Fédération Wallonie Bruxelles, 2016a)

2017 Moins de 13 ans In order to address the specific needs of educators for younger pupils, the FWB portal includes a detailed file on messaging and search engines for youngsters below 13 years of age. (Fédération Wallonie Bruxelles, 2017b)

2017 TICE et classe inversée In the same year, the FWB produced a report on flipped classrooms and the opportunities offered by ICT in such a context. (Fédération Wallonie Bruxelles, 2017a)

On top of reviewing its school curricula to implement a real digital policy in French speaking Belgium, the FWB has launched and supported an increasing amount of initiatives, guiding the professionals of education towards practical uses for ICT in – or outside – the classroom.

3.3. OER – 404 Not Found

When the European Commission carried out a public consultation between August and November 2012, the responses were quasi unanimous;

84% of respondents found that ensuring a wider availability and use of ICT and OER in education should be a top priority for the EU and its Member States. The most important actions to be implemented were ensuring open access for educational resources developed with public funding; support for teacher education and

professional development on ICT didactics and use of open educational resources; increased access to communities of practice; and adaptation of the funding and quality frameworks to incentivise engagement in open education. (European Commission, 2013, p. 12)

The report immediately dampens the enthusiasm by stating that, according to the literature, Europe is currently failing to grasp the opportunities of both ICT and OER. (European Commission, 2013, p. 12) If ICT are gradually appearing on the educational map of French speaking Belgium, the same can unfortunately not be said for open educational resources. Our research has shown no presence of either “Open Educational Resources” or its acronym in the various documents we analysed.

4. ICT & OER and Teacher Training

4.1. The European context

The results of the public consultation by the European Commission bring a sad commentary on the actual presence of new technologies and open resources in European classrooms. Indeed, 87% of the respondents consider that ‘pedagogical approaches for using ICT and OER are not sufficiently available to teachers, particularly during initial teacher training.’ (European Commission, 2013, p. 13) Out of the proposed steps to be undertaken, the following were deemed essential by the respondents:

- ensuring open access for educational resources developed with public funding;
- support for teacher education and professional development on ICT didactics and use of OER;
- increased access to communities of practice;
- and adaptation of the funding and quality frameworks to incentivize engagement in open education. (European Commission, 2013, p.13)

Not surprisingly, a joint EC-OECD study conducted in 2010 indicates that, although the curricula for teacher training in 18 European countries mentions digital literacies, 58% of the surveyed

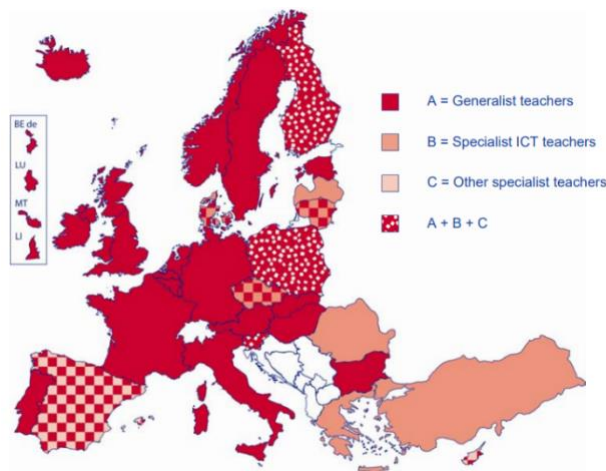


Figure 12: Types of teachers teaching ICT in primary education (ISCED 1), 2009/2010 (Eurydice, 2011, p. 63)

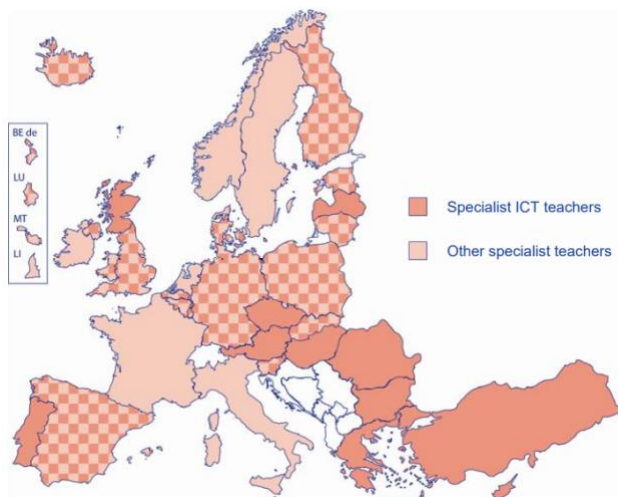


Figure 13: Types of teachers teaching ICT in general secondary education (ISCED 2 and 3), 2009/2010 (Eurydice, 2011, p. 64)

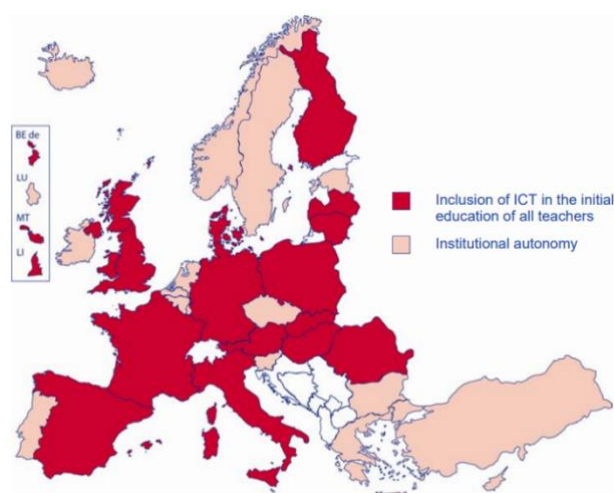


Figure 14: Regulations on the inclusion of ICT in initial education for teachers in primary and general secondary education (ISCED 1, 2 and 3), 2009/2010 (Eurydice, 2011,

teachers declared having received no training as to how to integrate ICT in their classes. Most of the respondents expressed a need for ‘support [for] teacher education and professional development on ICT didactics and use of OER, and increase[d] access to communities of practice.’ (European Commission, 2013, p. 24) In the next paragraphs we will study the results of a study by the European Commission on ‘learning and innovation through ICT at school in Europe’ (2011) and attempt to – almost literally – situate French speaking Belgium on the map.

Figure 12 and Figure 13 depict a rather uniform image of Europe with mostly teachers with no specific information and communication technologies qualifications teaching ICT in primary schools and a mixture of ICT- and other subject professionals in secondary education establishments dealing with this subject. When putting these two maps into perspective with Figure 14, however, one can only deplore the fact that there are no central recommendations in French speaking Belgium for the inclusion of ICT in initial education for future primary or secondary teachers. As a result, not only do pupils receive instruction on information

and communication technologies from non-specialists, but also these teachers might not have received any training on the subject at all.

Once again French speaking Belgium is lagging behind its European neighbors in terms of regulations on evaluating teachers' ICT skills with, yet again, no centralised policy on the matter – cf. Figure 16. Finally, Figure 15 sheds a brighter light on tiny FWB as it seems to offer both websites with educational material and platforms for collaboration and exchange to its teachers. Given that the FWB's pedagogical schools enjoy total autonomy as to how and if they include ICT in their teacher training curricula, we will further investigate the matter in the next section.

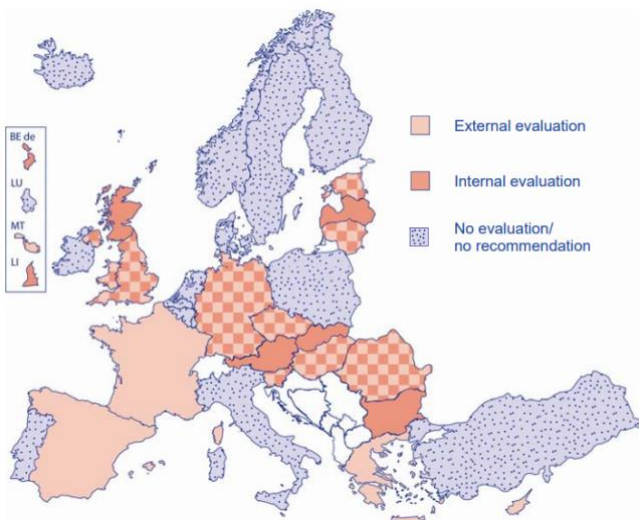


Figure 16: Regulations on evaluating teachers' ICT skills in primary and general secondary education (ISCED 1, 2 and 3), 2009/2010 (Eurydice, 2011, p. 67)

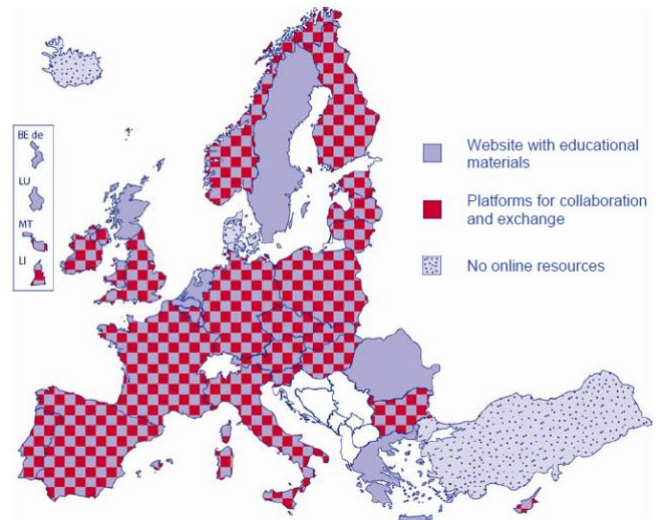


Figure 15: Websites and platforms for teacher collaboration on ICT use for teaching and learning in primary and general secondary education (ISCED 2, 2 and 3), 2009/2010, (Eurydice,

4.2. In the FWB

4.2.1. To date – slim pickings

Initial training

In French speaking Belgium the degrees of kindergarden and primary school teacher, as well as the certification to teach the first three years of secondary school are delivered by higher education establishments. By decree, each of these future teachers has to follow a 60-hour course on how to use a computer and on the benefits of ICT and media in education – i.e.

Utilisation de l'ordinateur et apport des médias et des TIC en enseignement. (Conseil de la Communauté française, 2001, p.9). Nevertheless no official curriculum has been designed by the central authorities and it falls to each school to implement its own. (CRIFA, ULg, n.d.) Drawing on this lack of uniformity, a team of researchers – the *Centre de Recherche sur l'Instrumentation, la Formation et l'Apprentissage de l'Université de Liège (CRIFA-ULg)* – along with several teachers in charge of the aforementioned course, decided to create a core programme for each higher education teacher to rely on. This document offers a definition of the skills to be acquired by the learners, disciplinary contents, pedagogical strategies as well as learning materials. (CRIFA, ULg, n.d.) A plethora of information on ICT and media can be found in these resources. Our research, however, showed no presence of OER or any associated notion.

Future upper-secondary school teachers are required to obtain a Master's degree, which includes their teacher training. Contrary to higher education establishments, Belgian universities have no common frame of reference when it comes to ICT courses. We will thus examine each teacher training curriculum separately.

- the *Université de Liège* – ULg – requires each of its future language teachers to take a 15-hour media education course – *Education aux médias*. (ULg, agrégation, n.d.) As the name suggests, this class deals primarily with media; neither ICT or OER are mentioned in the official program.
- the *Université Catholique de Louvain* – UCL – does not organise any compulsory course on ICT in its teacher training curriculum. A closer look at the Arts faculty programs reveals an optional 30-hour seminar on learning and teaching with new technologies - *Apprendre et enseigner avec les nouvelles technologies*. According to the description, the course focuses heavily on the use of (new) ICT in education. No mention is made of OER. (UCL/SGSI, n.d.-a) A second 15-hour optional seminar is offered by the UCL's Arts faculty, which is specifically aimed at future English teachers; 'English Teaching Methodology'. (UCL/SGSI, n.d.-b) This particular class focuses on digital literacy and its impact on learning and teaching ESL. There is no mention of OER on the course description.
- The *Université Libre de Bruxelles* – ULB – displays no course title referring to ICT or OER in its language teacher training curriculum. (ULB, n.d.) Given that no

specific information on the content was displayed on the various course descriptions, we contacted the person in charge of the programs – Mr Jérôme Lambot – who confirmed the curriculum contained no official trace of either ICT or OER.

Continuing Professional Development (CPD)

Our hunt for ICT and OER within the initial training curriculum of future language teachers left us with a reasonably sizeable catch. We will now follow the path of more seasoned teachers and attempt to identify their opportunities to train on new technologies and/or open educational resources throughout their career.

In French speaking Belgium, CPD is based both on a compulsory and a voluntary basis (Conseil de la Communauté française, 2002, Chap. 2, Art. 7). Each secondary school teacher must attend – minimum – 6 half days of training per school year (Conseil de la Communauté française, 2002, Chap. 2, Art. 8, §2). In the following paragraph we will investigate the various training organisations and analyse their offer based on the number of ICT- and OER-related sessions they display in their catalogue. Table 1 summarises the number of training sessions on offer in each organisation. Each occurrence represents a training, which focuses on the key-word matter listed on the left. Some training sessions encompass more than one aspect, in which case it will occur more than once in the table.

Key word	TOTAL	IFC	WBE	CECP	CPEONS	FoCEF	CECAFOC	FELSI	FCC
TIC(E)	75	10	0	3	38*	4	5	/	15
Numérique	105	58*	1	0	3	1	23	/	19
Digital	4	2*	0	0	1	0	1	/	0
Média(s)	40	17*	0	0	4	2	17*	/	0
REL	0	0	0	0	0	0	0	/	0

Table 1: CPD offer 2017-2018 in FWB, number of hits by key word from various training organisations' catalogues.

The highest number has been highlighted with an asterisk.

The 2017-2018 catalogue of the *Institut de la formation en cours de Carrière* (Institut de la Formation en cours de Carrière, n.d.) offers no less than 60 training sessions on digital – cf. keywords *numérique* and *digital* – aspects in education. Teachers have a varied choice between

17 training sessions on media and 10 different topics cover ICT – cf. keywords *TIC* and *TICE*. Not for the first time in our research have OER proven to be neglected as a valuable topic for teacher training. *Wallonie-Bruxelles Enseignement* seems to focus on any other aspect but new technologies, offering only one training related to the digital world. (*Wallonie-Bruxelles Enseignement*, n.d.) The CECP offers three trainings on ICT, which encompass various aspects of the media and the digital world. (CECP - F.E.L.S.I., n.d.). As for the CPEONS, it displays a wide array of ICT related topics for teachers to train on. OER, however, are nowhere to be found in the catalogue. (CPEONS, n.d.) The FoCEF focuses on primary school teachers and seems to widen their ICT horizons with a few training sessions. Nevertheless, they never mention the existence of open educational resources. (FoCEF, n.d.) A quick glance at the best performing keywords in the CECAFOC's catalogue highlights the omnipresence of the digital world and that of the media. One again deplores the total absence of reference to OER. (CECAFOC, n.d.) At the time of writing the FELSI had not yet published its training catalogue for 2017-2018 (FELSI, n.d.). Finally, the FCC, like all the other FWB training organisations, fails to refer to OER but offers a wide range of trainings on ICT and other digital matters. (FCC, n.d.)

As a conclusion, except for the *Université Libre de Bruxelles*, teacher training establishments seem to rise to the occasion when left with an almost total autonomy in their ICT training policies. The presence of ICT-related training opportunities is even more prominent in the various continuing training catalogues that we analysed. Unfortunately, and no for the first time, OER are nowhere in sight in the career path of the FWB's teachers.

4.2.2. Does a brighter future lie ahead?

As mentioned in section 3.2 above, the FWB is in the process of revisiting its entire educational system. The minister for education therefore needs to match its teacher training to its educational ambitions. No official programs have been published so far but the government has expressed its views on the topic, stating that reforming teacher training was paramount: '*Une des priorités du Pacte sera, par ailleurs, la réforme de la formation initiale et continuée des enseignants, [...]*' (Pacte pour un enseignement d'excellence, 2015b, p.23).

The central working group gave a more precise indication of what the future of teacher training could look like in the FWB, stating that a digital transition of the educational panorama in the FWB would only be possible if all the actors of education were trained and supported on the matter:

Réussir la transition numérique suppose que l'ensemble des acteurs de l'enseignement bénéficient d'un accompagnement local et de formations renouvelées et que celles-ci favorisent l'innovation pédagogique. Tant les enseignants que les inspecteurs, les conseillers pédagogiques et les directions doivent pouvoir en bénéficier. (Pacte pour un enseignement d'excellence, 2017, p. 91)

Therefore, the central working group recommends that initial, as well as continuing training be consolidated to foster innovation and the use of digital tools at school. They go as far as to prescribe a real transformation of the teachers' attitude by integrating innovation- and digital-related skills into their initial and continuing training:

La formation à l'intégration des innovations pédagogiques et l'usage du numérique - en tant que levier potentiel pour favoriser l'innovation - doit être revue et renforcée. Le GC soutient à cet égard qu'il importe de transformer la posture enseignante en intégrant à la formation initiale et continue des enseignants [...] les compétences relatives à la mise en œuvre des innovations pédagogiques [...]. (Pacte pour un enseignement d'excellence, 2017, p. 92)

The intentions of the FWB are quite clear as to their wish for a deep reformation of the educational system in French speaking Belgium. One can only hope that the Ministry for Education will find the means for its ambitions and support the growth of an innovative use of ICT in the classroom. As for OER they seem to, once again, have been forgotten in the FWB's masterplan for 21st century education.

5. OER-applicable Models

This section presents models on the integration of technology and/or OER in teaching. We will use them in our personal analysis of the TELLOP training programme – cf. Part II, section 10. We have organised it so that it mirrors the several points that will be addressed in section 10.2.

5.1. The TPACK Model

Koehler and Mishra (2009) have developed a model, which puts the omnipresent technology of the 21st century into perspective with more traditional teaching components. As stated by Dudeney, Hockly and Pegrum, “teachers remain content and pedagogical experts; technological expertise is an additional dimension which complements rather than replacing or superseding their existing knowledge and skills base.” (2013, Box 2.2) The box below displays a summarised version of Koehler and Mishra’s TPACK model by the authors themselves, navigating the delicate balance between their three components of knowledge, i.e. Technology, content and pedagogy. At the very centre of the model lies the notion of TPACK, amounting to more than the sum of its components and boding, for those who manage to transcend the three types of knowledge, “truly meaningful and deeply skilled teaching”.

The Seven Components of TPACK (Koehler & Mishra, 2009)

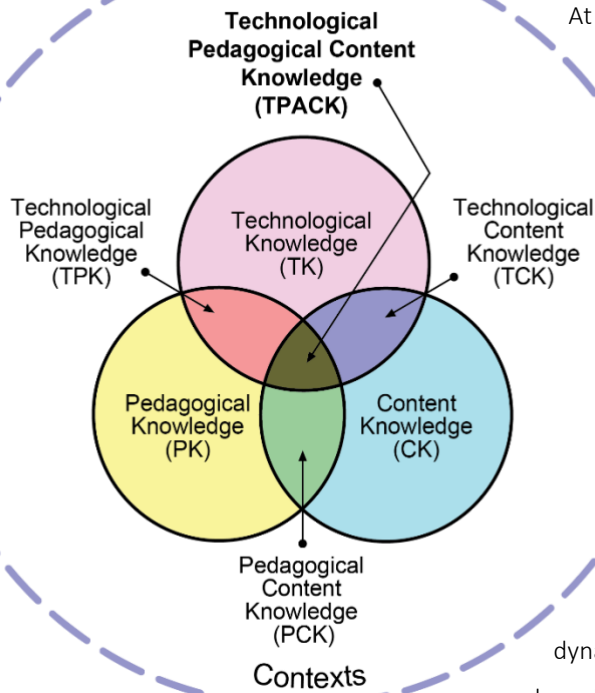


Figure 17: TPACK image (<http://tpack.org>)

At the heart of the TPACK framework, is the complex interplay of three primary forms of knowledge: Content (CK), Pedagogy (PK), and Technology (TK). The TPACK approach goes beyond seeing these three knowledge bases in isolation. The TPACK framework goes further by emphasizing the kinds of knowledge that lie at the intersections between three primary forms: Pedagogical Content Knowledge (PCK), Technological Content Knowledge (TCK), Technological Pedagogical Knowledge (TPK), and Technological Pedagogical Content Knowledge (TPACK).

Effective technology integration for pedagogy around specific subject matter requires developing sensitivity to the dynamic, transactional relationship between these components of knowledge situated in unique contexts. Individual teachers, grade-level, school-specific factors, demographics, culture, and other factors ensure that every situation is unique, and no single combination of content, technology, and pedagogy will apply for every teacher, every course, or every view of teaching.

Content Knowledge (CK) – “Teachers’ knowledge about the subject matter to be learned or taught. The content to be covered in middle school science or history is different from the content to be covered in an undergraduate course on art appreciation or a graduate seminar on astrophysics... As Shulman (1986) noted, this knowledge would include knowledge of concepts, theories, ideas, organizational frameworks, knowledge of evidence and proof, as well as established practices and approaches toward developing such knowledge” (Koehler & Mishra, 2009).

Pedagogical Knowledge (PK) – “Teachers’ deep knowledge about the processes and practices or methods of teaching and learning. They encompass, among other things, overall educational purposes, values, and aims. This generic form of knowledge applies to understanding how students learn, general classroom management skills, lesson planning, and student assessment.” (Koehler & Mishra, 2009).

Technology Knowledge (TK) – Knowledge about certain ways of thinking about, and working with technology, tools and resources. and working with technology can apply to all technology tools and resources. This includes understanding information technology broadly enough to apply it productively at work and in everyday life, being able to recognize when information technology can assist or impede the achievement of a goal, and being able continually adapt to changes in information technology (Koehler & Mishra, 2009).

Pedagogical Content Knowledge (PCK) – “Consistent with and similar to Shulman’s idea of knowledge of pedagogy that is applicable to the teaching of specific content. Central to Shulman’s conceptualization of PCK is the notion of the transformation of the subject matter for teaching. Specifically, according to Shulman (1986), this transformation occurs as the

teacher interprets the subject matter, finds multiple ways to represent it, and adapts and tailors the instructional materials to alternative conceptions and students' prior knowledge. PCK covers the core business of teaching, learning, curriculum, assessment and reporting, such as the conditions that promote learning and the links among curriculum, assessment, and pedagogy" (Koehler & Mishra, 2009).

Technological Content Knowledge (TCK) – "An understanding of the manner in which technology and content influence and constrain one another. Teachers need to master more than the subject matter they teach; they must also have a deep understanding of the manner in which the subject matter (or the kinds of representations that can be constructed) can be changed by the application of particular technologies. Teachers need to understand which specific technologies are best suited for addressing subject-matter learning in their domains and how the content dictates or perhaps even changes the technology—or vice versa" (Koehler & Mishra, 2009).

Technological Pedagogical Knowledge (TPK) – "An understanding of how teaching and learning can change when particular technologies are used in particular ways. This includes knowing the pedagogical affordances and constraints of a range of technological tools as they relate to disciplinarily and developmentally appropriate pedagogical designs and strategies" (Koehler & Mishra, 2009).

Technological Pedagogical Content Knowledge (TPACK) – "Underlying truly meaningful and deeply skilled teaching with technology, TPACK is different from knowledge of all three concepts individually. Instead, TPACK is the basis of effective teaching with technology, requiring an understanding of the representation of concepts using technologies; pedagogical techniques that use technologies in constructive ways to teach content; knowledge of what makes concepts difficult or easy to learn and how technology can help redress some of the problems that students face; knowledge of students' prior knowledge and theories of epistemology; and knowledge of how technologies can be used to build on existing knowledge to develop new epistemologies or strengthen old ones"

5.2. The SAMR Model

Like Koehler and Mishra, Puentedura is concerned with a fruitful and pedagogical integration of technology within teaching activities. He describes a four-step ladder, on which he classifies technology-integrated activities, going from a basic and non-revolutionary "substitution" of traditional tasks to a game-changing way of redefining an activity through technology. The box below contains a summarized version by Puentedura of his SAMR model.

SAMR Model (Puentedura, 2018)

The hierarchical SAMR (Substitution, Augmentation, Modification, Redefinition) Model by Puentedura appears to be, at face value, a straightforward and simplistic structure to adopt in the classroom. The Model follows a transition for technological

adoption in education which, Puentedura believes, most educators follow when first introducing technology to their students.

The SAMR Model increases significantly in complexity from substitution to redefinition:

Substitution: At the substitution stage of the Model, technology has been introduced into the classroom, but as a direct substitution for more traditional educational tools, activities, and teaching. There has been no change in either the process or end results through technology's inclusion at this early stage, and the benefits and results for students are negligible. A frequently cited example of the substitution stage include writing essays or assignments on the computer, as opposed to pen and paper.

Augmentation: The augmentation stage of the SAMR Model is similar to the previous level of technology adoption, with technological tools and software again acting as a substitute for traditional educational means. However, there is a functional improvement at this level in the teaching, learning, or working process, providing some benefits, though slight, to students. Examples at this stage include student using the spell- and grammar-check functions of word processing software, easing the writing process and improving their potential speed and efficiency.

Modification: The modification stage of the Model provides the most significant change in technology adoption in the classroom for both educators and learners. Through modification, the tasks and goals of the classroom are changed through the use of, and access to, technology. This redesign of educational assignments, assessments, and more presents new opportunities for students to analyze their work and their learning process through a technological lens. The use of Google Docs to write documents, allowing for student collaboration and immediate feedback, would be a considerable modification to the learning environment.

Redefinition: The final stage of the SAMR Model, redefinition, provides intensive changes and transformative experiences for students and educators, with traditional educational tasks and goals now completely replaced through the incorporation of technology in the classroom. With an understanding of the benefits and possibilities presented by technology, teachers can create new learning tasks, assignments, and assessments strictly based through a digital platform. This offers students new immersive experiences and despite appearing to be a daunting task, Puentedura notes that the redefinition stage ultimately provides positive results in the classroom.”

Redefinition

Tech allows for the creation of new tasks, previously inconceivable

Modification

Tech allows for significant task redesign

Augmentation

Tech acts as a direct tool substitute, with functional improvement

Substitution

Tech acts as a direct tool substitute, with no functional change

5.3. Factors affecting digital activity choice

Beyond the concepts of pedagogy, knowledge, technology and redefinition of the task, Dudeney, Hockly and Pegrum (2013) bring a very hands-on perspective to digital activities in

the classroom. The following box displays the factors, which – according to them – affect a teacher’s willingness to use certain technologies:

Factors affecting digital activity choice (Dudenev et al., 2013, Chapter 3, pp. 10-11)

- Pedagogical factors (relating to our students as language learners)
- Syllabus: whether the literacy and activities ‘fit’ with the **coursebook** aims, units and topics.
- Class type: whether we are teaching General English, Business English, EAP (English for Academic Purposes) or ESP (English for Specific Purposes), etc.
- Class context: whether or not we are teaching in an English-speaking environment.
- Language level: the **linguistic proficiency** of our students.
- Language needs: the particular **language needs** our students may have.
- **Language wants**: the types of language our students most want to learn or practise.
- Personal factors (relating to our students as private individuals)
- **Ages**: whether our students are young learners, adolescents or adults.
- **Interests**: what sorts of activities and topics motivate our students (see also Language wants above and Attitudes below).
- Culture(s): the **cultural context** as well as the **cultural backgrounds** of students in our class.
- Digital factors (relating to our students as technology users)
- **Attitudes**: our students’ attitudes towards digital technologies in general as well as specific tools.
- **Tech levels**: the technological proficiency and confidence of our students.
- **Digital literacy levels**: how digitally literate our students already are.
- **Equipment and tools**: what hardware and software we and our students have access to.

5.4. Factors affecting OER use

Similarly to Dudenev, Hockly and Pegrum, Masterman and Wild have focused on why education professionals decided - or not - to use a specific version of digital resources, i.e. OER in this particular case. The results from their study (2011, pp. ii-iii) indicate that the following factors are critical in whether or not teachers are willing to use OER:

- **Relevance of content and fit to the lecturer’s current purpose.** These are paramount, but are contingent on any one lecturer’s requirements. Although some topics will be in more demand than others, minority interests also need to be accommodated.
- **Provenance.** OER produced by higher education institutions and other academic bodies are perceived to have a stamp of quality.

- **Pedagogic intent.** Teachers appreciate resources that have either been explicitly developed for educational purposes or can readily be co-opted for such a purpose.
- **Granularity.** Lecturers look, in the main, for individual images, short audio or video clips, or readings for incorporation into their teaching plans (learning designs). However, when faced with teaching a substantial topic with which they are unfamiliar they may turn to OER that support longer stretches of learning (i.e. complete lessons or sequences of lessons).
- **Media.** Rich media resources are perceived as a means to help students visualise and grasp difficult concepts, and to practise skills in their own time. However, audio and visual media should be accompanied by transcriptions to aid selection and evaluation.
- **Topicality, contemporaneity.** Teachers and students value resources that are up to date in relation to current affairs or to current academic research.

Masterman and Wild (2011, pp. iii-iv) have further analyzed the logistical factors that can account for teachers' willingness to work with OER. They have come up with the following list:

- **Volume of resources.** A critical mass has yet to be reached to make OER viable across the board. This problem is more severe in some disciplines than others, although we have insufficient data to identify those in the greatest need. Interdisciplinary searches are also problematic.
- **Technical and implementation issues.** The following are all likely to deter would-be users of OER: poorly indexed materials, inadequate search engines, the requirement to register with a site or download an application in order to retrieve or run a resource, and unreliable hardware or software on the hosting site.
- **Discoverability.** This issue stems largely from low volume, poor indexing and the low power of some search engines. It can be mitigated to some extent where teachers are part of a community and can benefit from word-of-mouth recommendations, but could prove a major stumbling block where teachers are working on their own, without the support of others.
- **Lack of licensing.** This appears to be problematic where a resource appears to be [sic] intended for general use, but does not carry a licence

The researchers (ibidem: 2011, pp. ii – iii) have also identified personal factors, proper to the teachers themselves, which promote their approach to OER:

- A conceptualisation of teaching as, *inter alia*, helping students to become active, independent learners.
- A recognition that combining materials that they have authored themselves with relevant materials from other sources may be both valuable (in terms of enhancing the quality of students' learning) and valid (e.g. acceptable if they may lack the skills and resources to create a particular resource themselves).
- Confidence, both in their command of subject matter and in their teaching skills, to share their own materials.
- Readiness to learn themselves (i.e. develop their professional practice), both from engaging with resources that others have made available, and from obtaining feedback on the resources that they have shared with others.
- A sense of responsibility for encouraging similar attitudes among their colleagues.

5.5. Lewin's procedures of changing social conduct

The sections that precede have highlighted, among other aspects, the importance of creating collaborative practices. In that respect, Lewin's work is particularly worth briefly commenting on. In the wake of post second world war behaviorism, Lewin turned his attention to processes of change in social conduct. In his 1947 article, *Frontiers in Group Dynamics*, he warns his readers of the apparent moral strength of individuals. According to his studies:

One might expect single individuals to be more pliable [sic] than groups of like-minded individuals. However, experience in leadership training, in changing of food habits, work production, criminality, alcoholism, prejudices, all seem to indicate that it is usually easier to change individuals formed into a group than to change any one of them separately. (Lewin, 1947)

This is why Lewin actually advocates “group-carried” changes in social conduct as individuals will resist changes as long as they drive them away from their group values. The most efficient way to have individuals evolve in their behavior is to change their group’s standard itself, therefore eliminating the potential resistance from each of its members.

Lewin demonstrated his theory through several experiments, each time featuring a test group and a control group. Figure 18, for example, shows the intensity and durability of a change

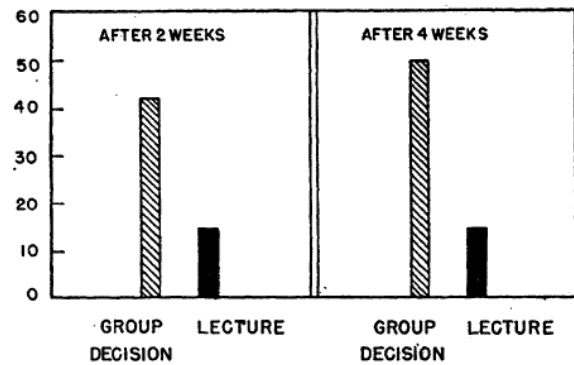


Figure 18: Percentage of mothers reporting an increase in the consumption of fresh milk (Lewin, 1947, p.35)

in behavior among mothers who were presented with the advantages of fresh milk consumption. In the test group, no sales techniques were used. Instead, the mothers discussed the issue, leading step by step to the conclusion that fresh milk consumption would be more advantageous. The control group of mothers was exposed to a lecture on the value of fresh milk consumption for the same amount of time. As demonstrated in Figure 18, not only does the group decision initially trigger behavior change in more than twice the amount of mothers, it actually continues to convince more test subjects with time.

This concept of « learning communities » first emerged in the business sector and has now been vastly integrated into educational practices (Thompson, Gregg, & Niska, 2004, p. 2) as a way to help teachers develop professionally, in a context where they need to rethink their role in the classroom (Vescio, Ross, & Adams, 2008, p. 80). Following the principles of Lewin’s studies, modern professional learning communities (PLC) rely on the teachers’ experience to foster reflexive discussions (Buysse, Sparkman, & Wesley, 2003, p. 264). Vescio, Ross and Adams’ (2008) analysis of 11 studies on PLC in education show their potential for “ change in the professional culture of a school [and for] a fundamental shift in the habits of mind that teachers bring to their daily work in the classroom.” (ibidem, 2008, p. 84) More importantly, the eight studies that have investigated the effect of the teachers’ participation in PLC on student achievement demonstrated an improvement in their learning outcomes. (ibidem, 2008, p. 88) It seems learning as a reflexive group of practitioners has proven to be a powerful and far-reaching tool for cultural changes among educators.

PART II – METHODOLOGY

6. TELLOP Training module description

The TELLOP project (<http://www.tellop.eu>) – which stands for Transforming European Learner Language into Learning Opportunities – brings together European partners from five different institutions, i.e.

- Universidad de Murcia in Spain
- Bath Spa University in the United Kingdom
- Université Catholique de Louvain in Belgium
- Justus-Liebig-Universität Gießen
- Melikşah Üniversitesi in Turkey³

These actors united their efforts with the support of the Erasmus+ programme of the European commission ('Erasmus+ - European Commission', n.d.) striving to:

promote the take-up of innovative practices in European language learning (Data Driven Learning, DDL) by supporting personalised learning approaches that rely on the use of ICT & OER by bringing together the knowledge & expertise of European stakeholders in the fields of language education, corpus & applied linguistics, e-learning & knowledge engineering in order to promote cooperation & contribute to unleash the potential behind already available web 2.0 services to promote the personalised e-learning of languages in the contexts of higher & adult education, in particular, through mobile devices. ('TELLOP', n.d.-a)

6.1. Objectives

More specifically, the TELLOP project encompasses several ambitious objectives, the first of which being the promotion of innovation in European Data Driven Learning (DDL). The TELLOP members endeavour to bridge the knowledge and expertise of the stakeholders of European language education and that of researchers in the field, i.e. 'corpus & applied linguistics, e-

³ On July 23 2016 the university was closed by decree (Scholars at Risk, 2016)

learning & knowledge engineering' ('TELLOP', n.d.-a), therefore promoting personalized e-language learning in higher and adult education. Emphasis is placed on the numerous natural language processing (NLP) technologies, which are available online. Through the use of DDL and OER – inter alia –the TELLOP project proposes a resolutely learner-centred approach to language learning, both in a formal and an informal context.

Since the inception of the project in 2015 the cluster of experts has produced several outputs on its research, which are all available on the TELLOP website. One project in particular consisted in an online teacher-training programme to raise awareness about the above-mentioned topics.

6.2. Format

The TELLOP team developed an online teacher training module and made it available in four languages – German, Spanish, French and English. (TELLOP, n.d.-b, p. 1) All four modules were launched simultaneously and lasted for five consecutive weeks, from January 16 to February 17 2017. The project members chose to host the course on a Moodle platform, which allowed for not only the sharing of documents, but also forum discussions between the trainer and the participants and assignment submissions. On top of the qualitative feedback provided by Moodle's various communication methods, the team gathered the participants' opinion through two online questionnaires, one to be filled in by the participants before they took the course, and the other one to be completed after their five-week training experience. The trainees who completed the entire programme received a TELLOP online course certification.

6.3. Content

As explained in the previous section, the training programme spread over five consecutive weeks. Each of these weeks was devoted to a particular angle of language learning:

- week 1: Pronunciation
- week 2: Vocabulary acquisition
- week 3: Interaction
- week 4: Writing
- week 5: Reading

The various tools listed under each section will be discussed in detail in the analysis of the training but we would like to point out that they were exclusively ‘big OER’ – see section 2.2 above.

Each weekly module followed the same pattern, starting with an introduction to the topic in general, followed by a summary of the scientific background on the tools to be presented. After this contextualisation phase the trainees were taken to a list of relevant OER complemented by a short explanation and the link to each resource. On the next screen the participants were prompted with several concrete actions to accomplish on the various online resources. The last page of each lesson displayed scientific references on the aforementioned tools.

After having completed this ‘solo’ phase, the participants were encouraged by the trainers to discuss the ‘tools of the week’ on the Moodle forum and finally, to write an individual one-page reflexive essay on the resources proposed in the week’s module.

7. Analysis of trainee feedback

Our analysis will be twofold; we will first aim at providing a depiction of the French TELLOP training program, which would be as objective as possible, based on the feedback received from a sizeable sample of participants. In a second phase we will present our own – and thus probably more subjective – appreciation of the training module.

The TELLOP team had anticipated a need for an assessment of the module ensuring that both quantitative and qualitative data would be collected from the participants. In the current section we will first describe our sample of respondents and then move on to our methodology for analyzing the results from their quantitative as well as their qualitative assessment of the training program.

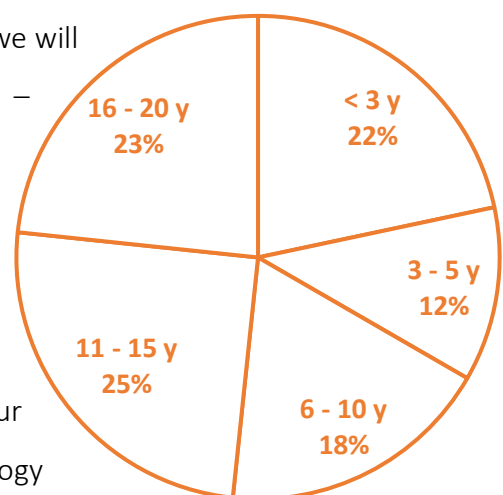


Figure 19: TELLOP trainees according to their teaching experience in years (respondents out of 86)

7.1. Sample

Our original sample consists of the 86 participants who initially enrolled in the French version of the TELLOP online training course. As indicated in Figure 20 a vast majority of them (73%) teach in a secondary education establishment. A quick glimpse at Figure 19 reveals a rather balanced representation of teacher experience among the 60 trainees who answered that question. The respondents seem to represent a mix of novice – 52% have less than 10 years of experience – and more seasoned educators with 48% having worked in the field for more than 10 years.

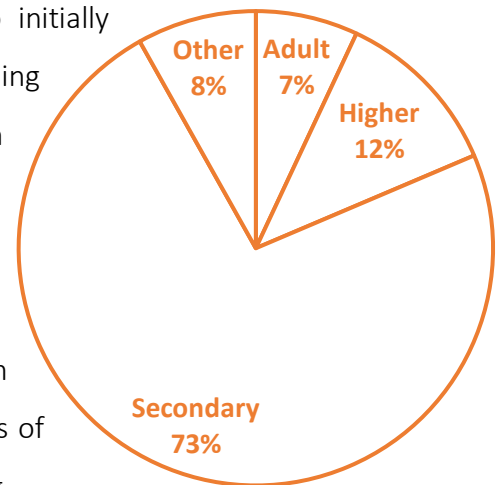


Figure 20: TELLOP trainees according to the type of institution they teach in

7.2. Feedback: some initial figures

Prior to taking the course per se the participants were requested to fill in an online pre-test questionnaire. On the one hand, they had to provide some general information about their profile, on the other, they were presented with statements about ICT and OER in the classroom, to which they had to react based on a 1 to 5 Likert scale. Eighty-six participants filled in the aforementioned pre-test questionnaire. After they had completed the training module the TELLOP trainees were asked to fill out another post-test survey focusing on their appreciation of the training module. Some of the statements were similar to those of the pre-test, which makes it possible to examine a potential evolution in the teachers' representations of OER and ICT. Thirty-two of the original eighty-six participants (viz. 37%) filled in the final questionnaire, which represents a rather good response rate⁴.

⁴ Internal surveys generally receive a 30-40% response rate on average (compared to an average 10-15% response rate for external surveys). See <https://www.surveymzmo.com/survey-blog/survey-response-rates/>

7.3. Qualitative feedback

On top of the pre- and post-training surveys mentioned above, the TELLOP team had planned for qualitative feedback to be collected after the completion of each section of the training. Some qualitative data to put the quantitative results in perspective is welcome since, as stated by Mastermind and Wild (2011, p.3), a qualitative approach is particularly recommended when one investigates 'expected changes in lecturers' (and learners') practice: looking for evidence of differences in what they do and in how they think about what they do'.

In practice, the trainees had to write a one-page reflexive assignment each time they had completed the viewing and exercises of each training topic. Valuable feedback can also be retrieved from the forum discussions on the Moodle platform of the course. We have participated in the analysis of this qualitative data along with the TELLOP team in order to produce an 'Output 9' report, which is available on the website of the project (TELLOP, n.d.-b). In order to extract data from the participants' assignments as well as their forum contributions we will rely on grounded theory (Cohen, L., Manion, L., & Morrison, K., 2013, p. 475), therefore allowing patterns and core values to emerge from the repeated comparison of respondents' feedback.

8. Personal analysis

In Section 10 we will propose a more personal insight into the training module. Part of our analysis will be based on the theoretical models presented in section 5. For the sake of clarity, we have organized the subsections so that they appear in the same order as the several sub-points of our analysis.

PART III – ANALYSIS

9. Analysis of trainee feedback

9.1. Feedback: quantitative analysis

As discussed above we will first attempt to assess the TELLOP teacher training via the participants' opinion on various aspects. We will first have a look at the data provided by the pre-test questionnaire filled in by the initial eighty-six participants in the French version of the training. This will allow us to determine our trainees' profile as well as their pre-existing knowledge and conceptions on several points. Our analysis of the answers from the post-test, in which thirty-six remaining respondents answered similar questions to those of the pre-test, will provide us with points of comparison, and therefore, with an evolutionary view of the trainees' perceptions.

The three figures below depict the sample of TELLOP trainees, which is consistent with the FWB's profile in terms of teacher initial training and in CPD – cf. section 4.2 above. Figure 22 attests to a minority of teachers – 36% – feeling their school fosters the use of mobile devices in the classroom, whereas even fewer education professionals – 16%, cf. Figure 23 – declare having received training on how to use those mobile devices with their pupils. Finally, only a tenth of the respondents – cf. Figure 24 – had been trained on the use of OER in an educational context before taking the TELLOP program. For the sake of clarity, we will now pace our analysis according to the training structure, i.e. one specific topic for each the five weeks of training, with a first introductory section on OER in general. Throughout the next sections we will analyse the trainees' responses to the pre- and post-training tests on a 1 to 5 Likert scale ranging from *totally disagree* to *totally agree*, as depicted in Figure 21.

Answer

- totally disagree
- rather disagree
- neutral
- rather agree
- totally agree

Figure 21: Breakdown of the TELLOP pre- and post-test Likert scale

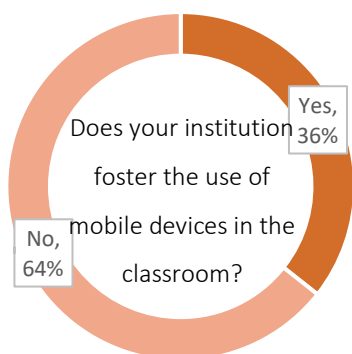


Figure 22: TELLOP pretest - question M

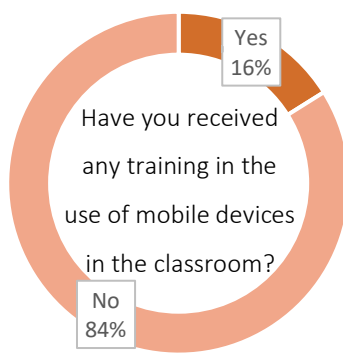


Figure 23: TELLOP pretest - question N

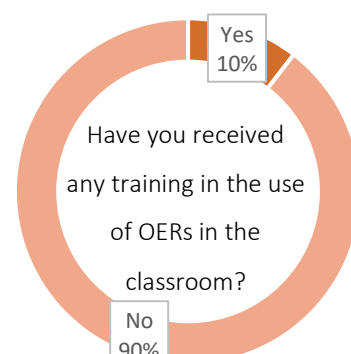


Figure 24: TELLOP pretest - question O

9.1.1. OER, a new hope?

Pre-test analysis

As shown in Figure 25 above, the future trainees' knowledge of the potential educational use for OER and mobile devices was predominantly weak, their appreciation on a 1 to 5 Likert scale averaging at 2.09 when prompted with the affirmation: *I have experience using OERs*, and a mere 2.22 for the statement *I have knowledge about OERs*. An even lesser amount of teachers – with an average of 1.89 – declare using OERs in their language teaching. When observing the trainees' general opinion and hopes for the use of OER in the classroom however, one discovers a more positive trend in the answers with the statement *I think my students appreciate my using OERs for language teaching* scoring just above neutral – 3.09. Teachers seem to have a rather positive preconception of OER, considering them *easy to integrate in [their] teaching* –

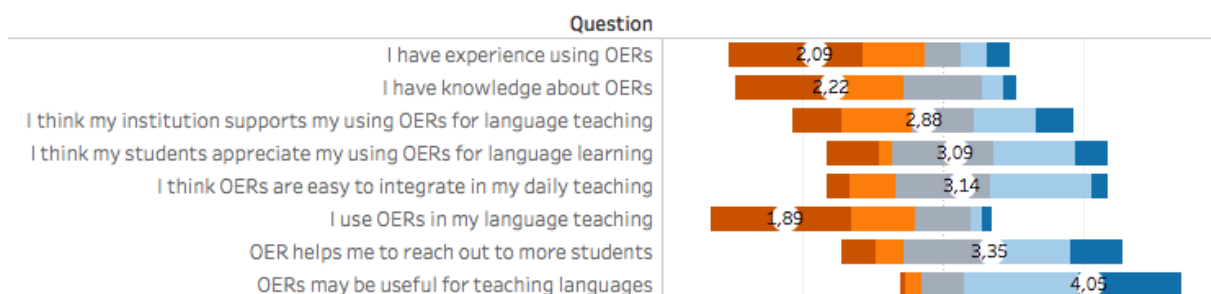


Figure 25: pre-test - OER-related questions on a 1 to 5 Likert scale

3.14 –, *helpful to reach out to [their] students* – 3.35 – and finally, deeming them potentially *useful for teaching languages* – 4.05.

A cross-referencing of the data according to whether or not the respondents had *received any training on the use of OER in the classroom*, previously to the TELLOP program, accounts for a greater trust and experience in open resources by those who answered positively – cf. Figure 26. Interestingly, the fact that the trainees do not feel their *institution fosters the use of mobile devices* seems to have no sizeable effect on their trust in the open resources – cf. Figure 27.

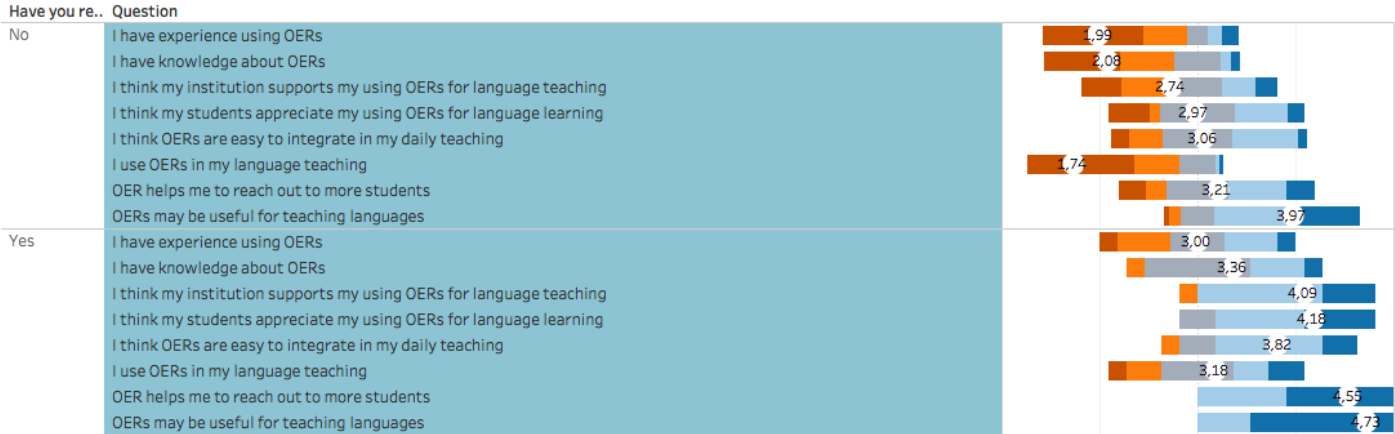


Figure 26: pre-test OER questions by 'have you received training on the use of OER in the classroom'

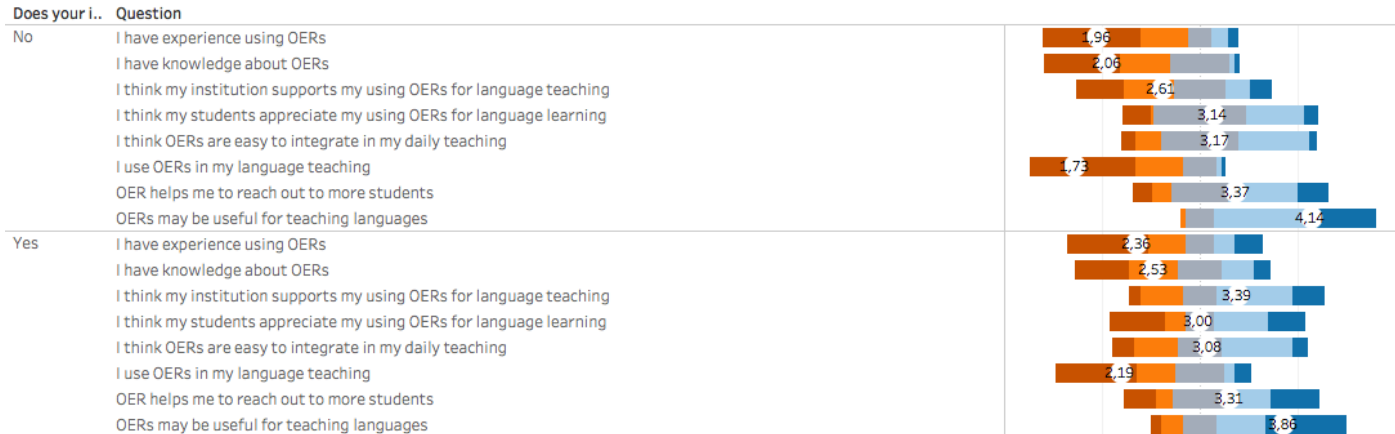


Figure 27: pre-test OER questions by 'does your institution foster the use of mobile devices?'

Post-test analysis

A quick glimpse at the general trend of the post-test answers casts an optimistic light on the general success of the training. The scores for the fourth statement, however, might lead to the conclusion that the TELLOP programme has failed to convince its participants that *integrating OERs in daily teaching [was] easy*, with an average appreciation of 2.91 – cf. Figure 28. A closer examination of the scores for the same statement, cross-referenced according to

whether the respondents had received previous training on OER would nonetheless exonerate the programme in question, since both the respondents who had received previous training and the novice ones rated the statement in a sensibly similar way – cf. Figure 29: 2.91 vs. 3.00.

Another contributing factor can be drawn from the TELLOP post-test that appears to slightly improve the respondents’ faith in OER, i.e. the fact that their institution *fosters the use of mobile*

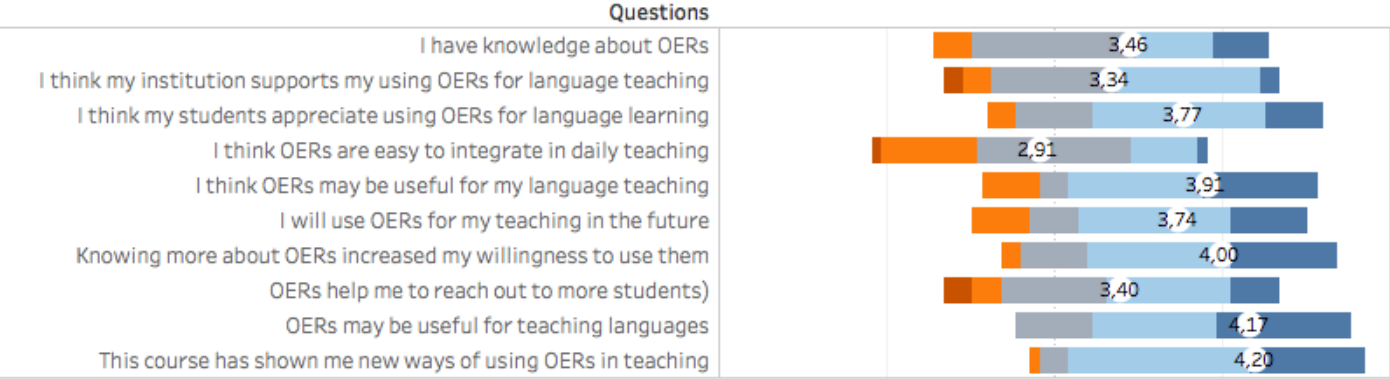


Figure 28: post-test OER questions

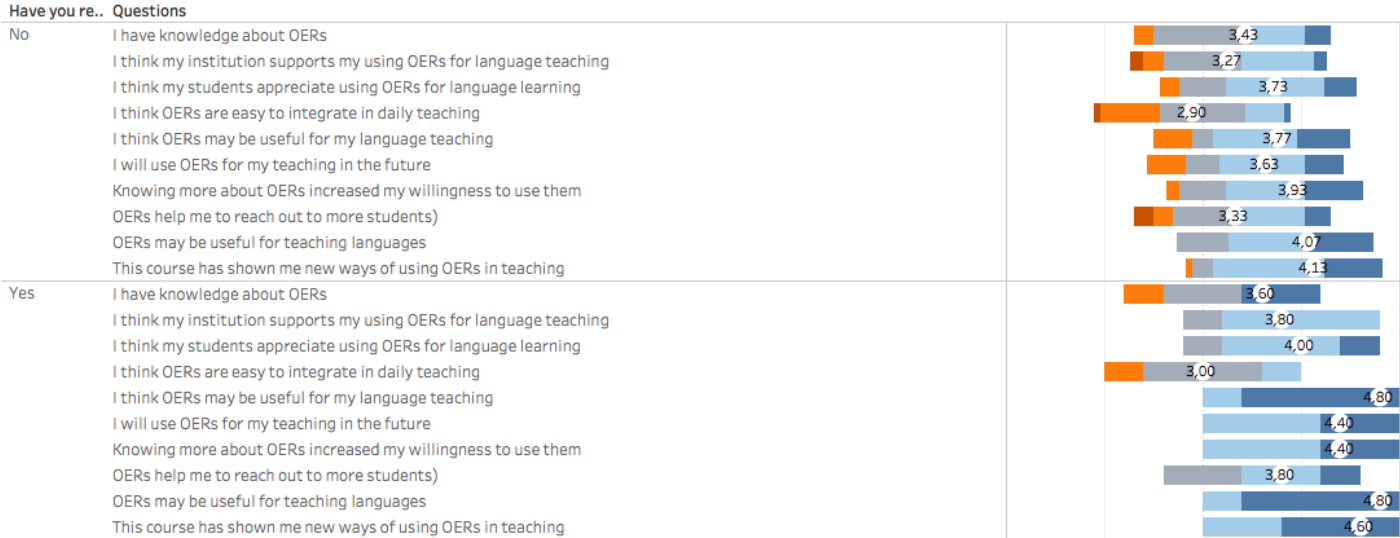


Figure 29: post-test OER questions by 'have you received any training on the use of OER in the classroom'

devices in the classroom. In other words, Figure 30 displays slightly better scores on the respondents’ general opinion on OER when the latter feel they are teaching in a “mobile-oriented/friendly” institution.

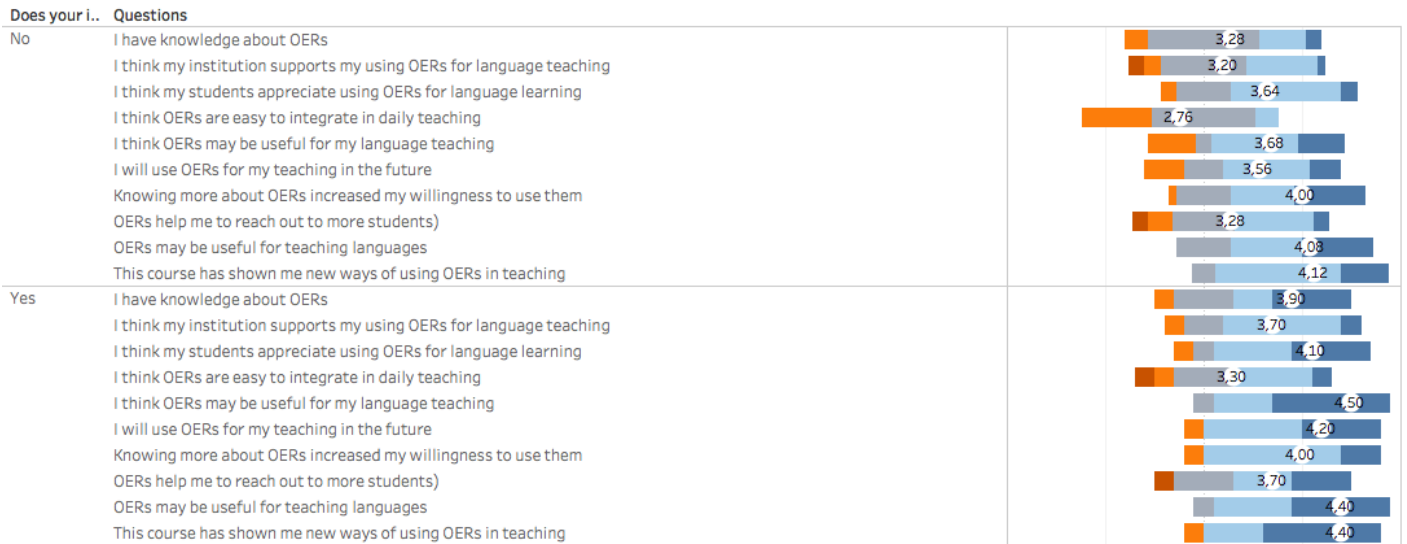


Figure 30: post-test OER questions by 'does your institution foster the use of mobile devices in the classroom'.

Finally, another factor seems to generate a slightly different appreciation from the respondents: previous OER training. When looking at the scores on OER by the teachers who had received previous training on the matter one observes an even greater enthusiasm, as compared to the scores of OER novices (cf. Figure 31).

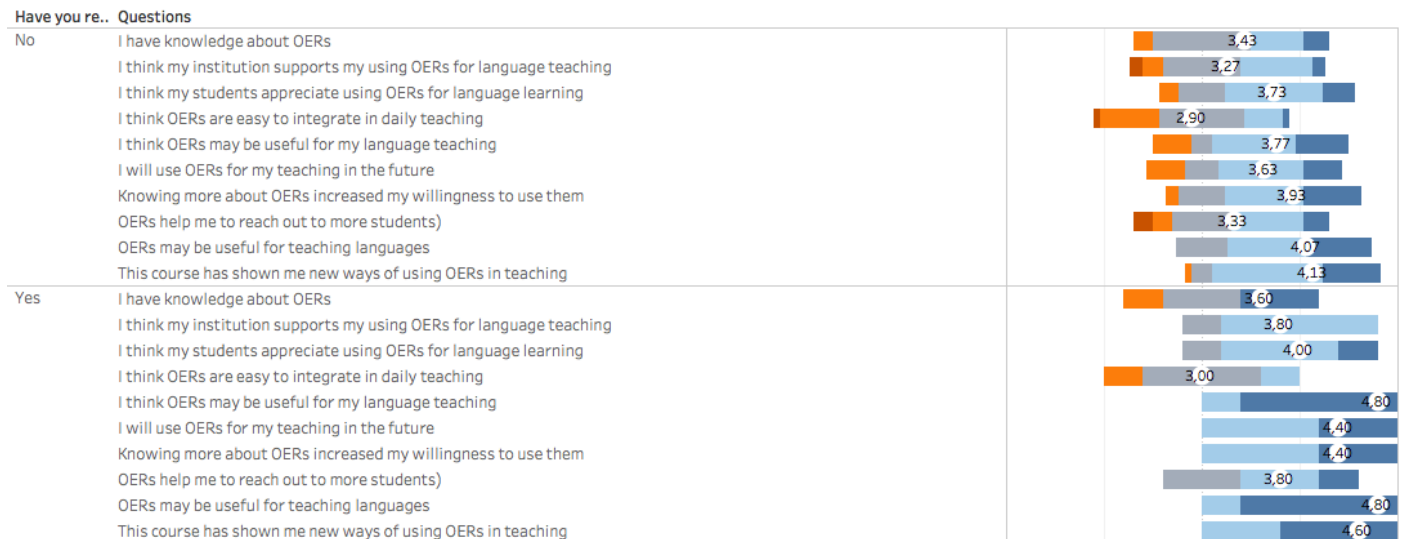


Figure 31: post-test OER questions by 'have you received any training on the use of OER in the classroom?'

After having examined the trainees' attitude towards OER in general, we will focus in the following sections on their feedback regarding the presented OER specifically. We have

grouped the data into topics, using the same structure as the one of the training module, that is, starting with text to speech and finishing with reading tools.

9.1.2. Text to speech – a turn of faith

Pre-test analysis

The pre-test reveals an audience, which was mostly unfamiliar with text to speech technologies before taking the TELLOP program. Those who had received previous training on open educational resources barely considered themselves as knowledgeable on such tools – 2.91 on average. As for the uninitiated participants, they admitted to a quasi-total ignorance on the matter – 1.88. Both groups tended to a total disagreement with the statement: *I use text-to-speech technologies* – cf. Figure 32.

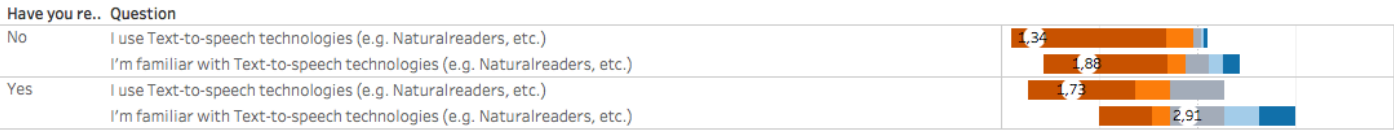


Figure 32: pre-test pronunciation by 'have you received any training on the use of OER in the classroom?'

Interestingly, similar trends can be observed when cross-referencing the participants' scores according to the mobile-friendliness of their environments – cf. Figure 33. Teachers who feel their school fosters the use of mobile devices considered themselves to be slightly more knowledgeable on text to speech technologies than the others – 2.58 vs. 1.69 – but the general mood towards the use of these tools remained uninvolved.



Figure 33: pre-test pronunciation by 'does your institution foster the use of mobile devices in the classroom?'

Finally, an evenly equilateral lack of knowledge and use of those text to speech tools was observed among the representatives of all experience groups – cf. Figure 34 – with no significant difference between new and more seasoned teachers.



Figure 34: pre-test pronunciation by 'how many years of experience do you have?'

Post-test analysis

The post-test results bring an overall stupendous improvement in the trainees' views on text to speech technologies, especially concerning the less experienced teachers who went from a total lack of use for them to a very trustworthy score on their potential usefulness for their language teaching – cf. Figure 35; 1.36 in the pre-test vs. 4.5 in the post-test.

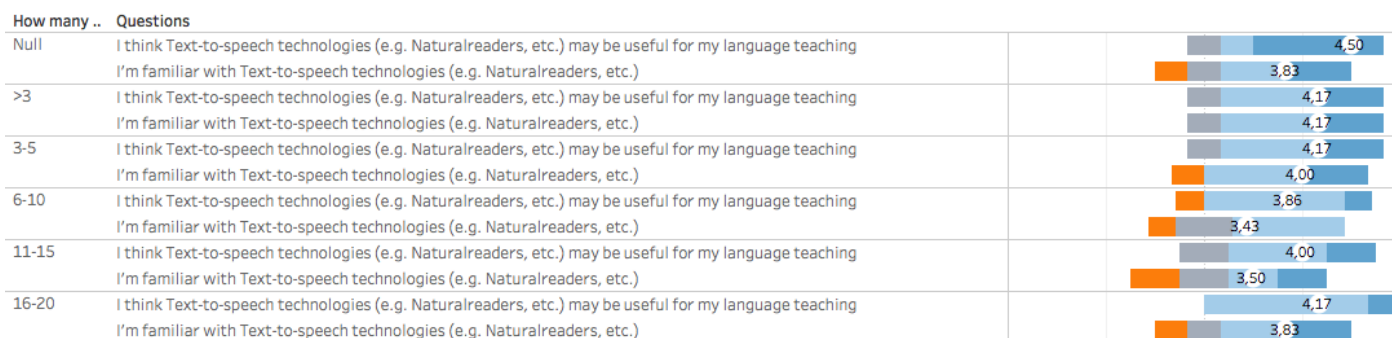


Figure 35: post-test pronunciation by 'how many years of experience do you have?'

Figure 36 confirms this pre-/post-test trend reversal with both novice and trained teachers on OER agreeing on the use of text to speech tools for their language teaching. On the other hand, the scores seem to have made less impressive progress when it comes to the respondents feeling *familiar* with such technologies. OER-trained teachers, for instance, have moved from a 2.58 average to 3.40.

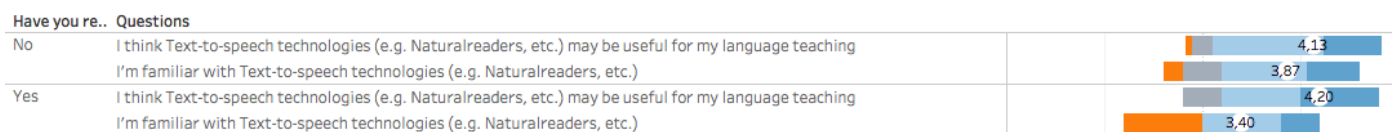


Figure 36: post-test pronunciation by 'have you received any training on the use of OER in the classroom?'

9.1.3. Vocabulary acquisition – doubting Thomas

Figure 37 shows – once more – how little the respondents knew about several vocabulary acquisition/analysis/reference resources before taking the TELLOP training, except for online dictionaries and collocation dictionaries, which were known and used by both the less and the more knowledgeable on OER.



Figure 37: pre-test vocabulary acquisition by 'Have you received any training on the use of OER in the classroom?'

Leaping forward to the post-test results – cf. Figure 38 – one notices the same enthusiasm for online dictionaries and online collocation dictionaries with an average score of 4.26 for the statement: *I think online dictionaries and collocation dictionaries [...] may be useful for my language teaching*. The confidence of the respondents improved but to a small extent when it came to word clusters with an average score of 3.43 as to their usefulness for language teaching. Finally, corpora and specialised corpora failed to make it to the rank of useful resources for language teaching with a mere 2.71 average.

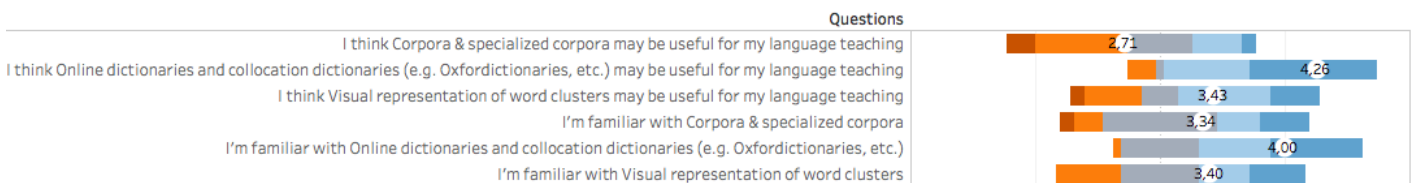


Figure 38: post-test vocabulary acquisition

Here again, it seems that the working environment of the respondents has had an influence on their faith in several OER. Figure 40, for instance, shows a clear propensity from the OER-trained respondents to judge vocabulary acquisition tools more favourably. A quick glance at Figure 39 establishes the same trend for people who had received training on mobile devices in the classroom.

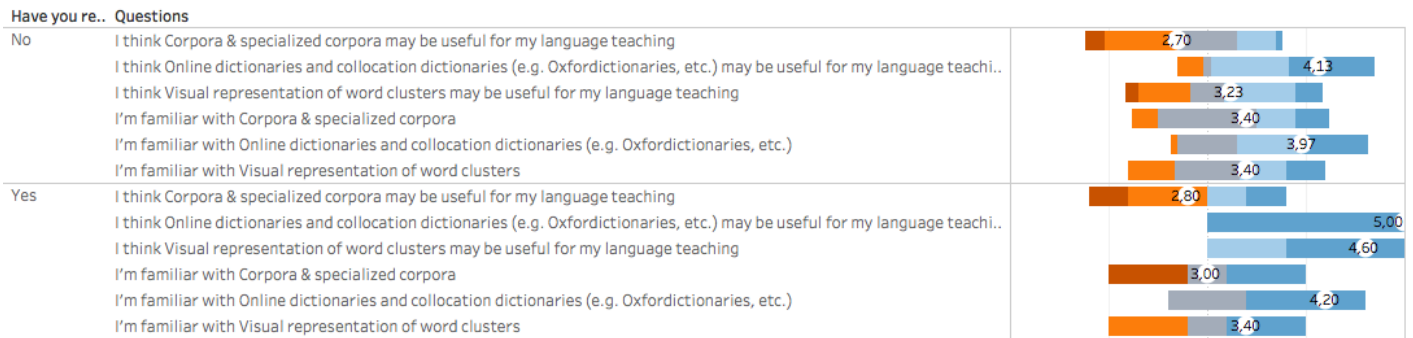


Figure 40: post-test vocabulary acquisition by 'Have you received any training on the use of OER in the classroom?'

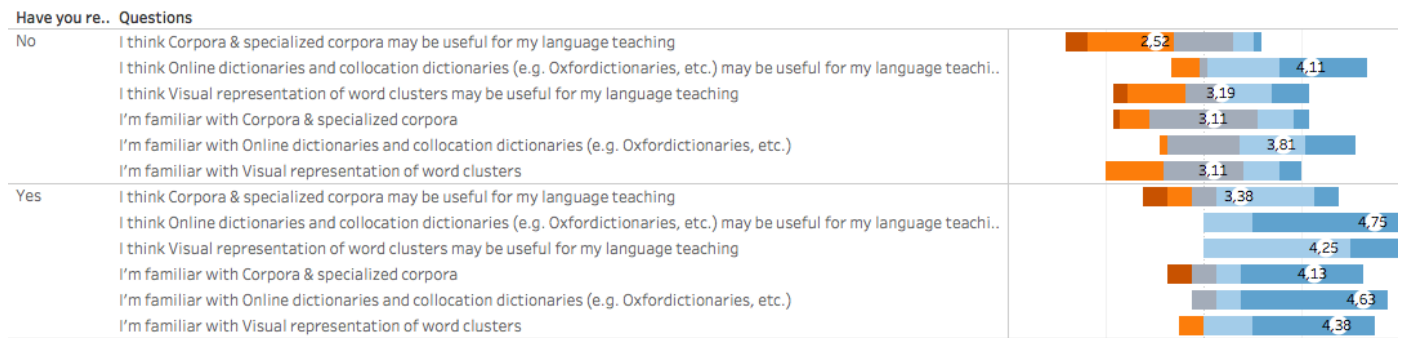


Figure 39: post-test vocabulary acquisition by 'have you received any training on the use of mobile devices in the classroom?'

9.1.4. Interaction – a yearning for more?

Pre-test analysis

As depicted in Figure 42, a vast majority of the respondents was unfamiliar with most features of social networking before taking the TELLOP training. Interestingly, when sorting the results according to the teachers' years of experience – cf. Figure 41, the same trend emerges; Social Networking Services (SNS) are known for their oral and written interaction features but remain largely disregarded in their other affordances. It even seems younger teachers are less aware of the possibilities of SNS than their more experienced counterparts. A further cross-

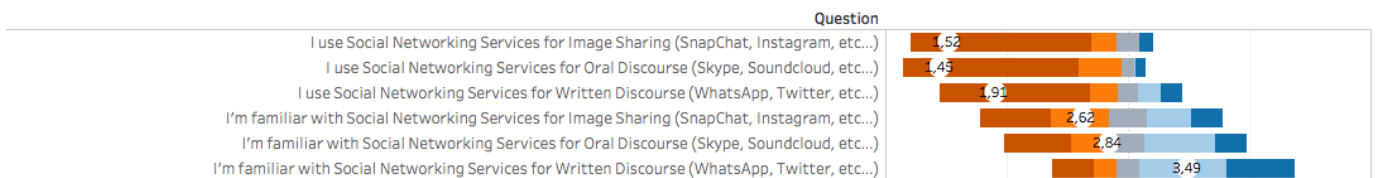


Figure 42: pre-test Interaction Tools

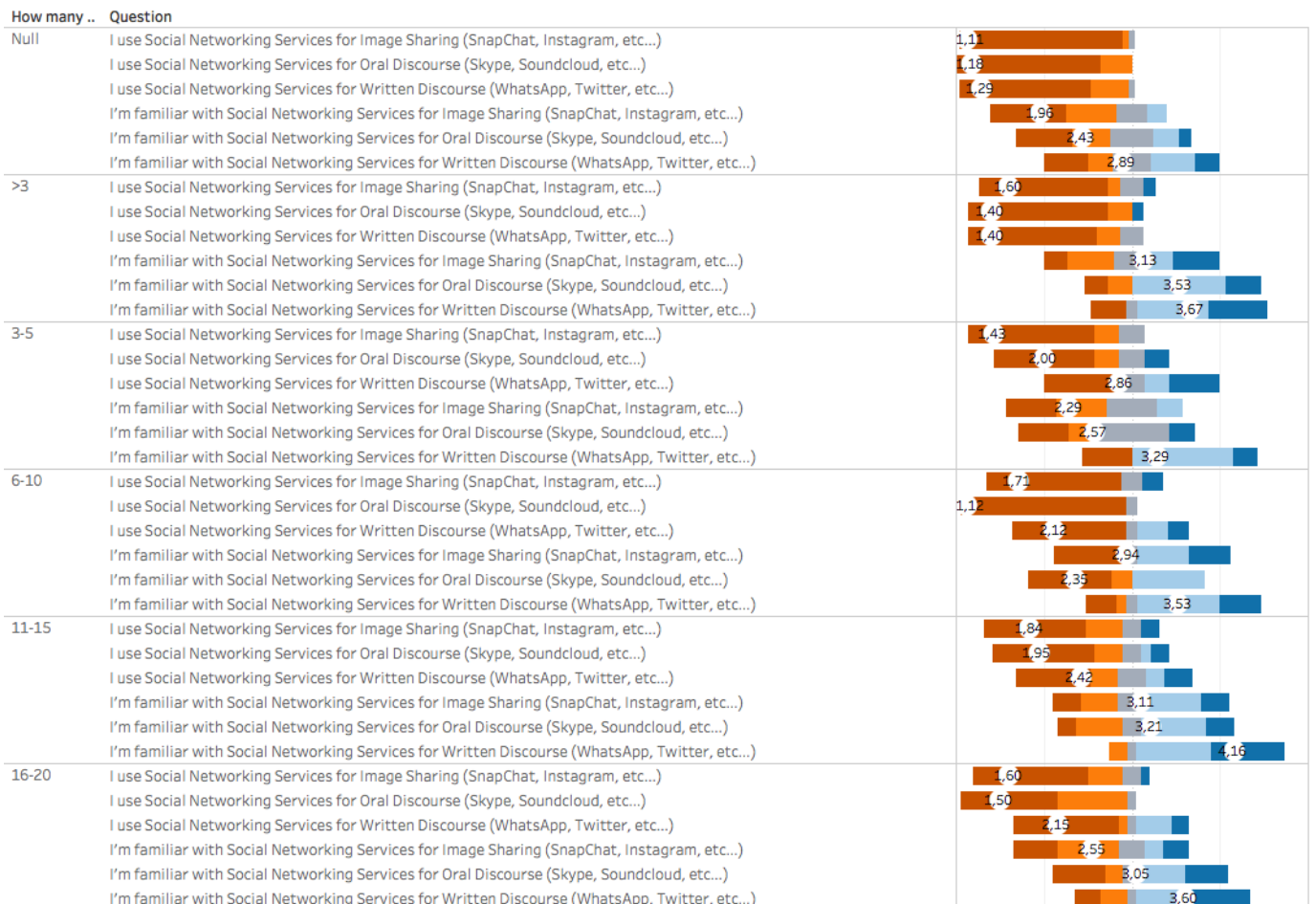


Figure 41: pre-test interaction tools by years of experience

examination of the results according to various factors does not generate any significantly relevant trend.

Post-test analysis

After having followed the TELLOP training course the teachers seemed to feel more knowledgeable on the various aspects of the presented interactive tools. They would not,

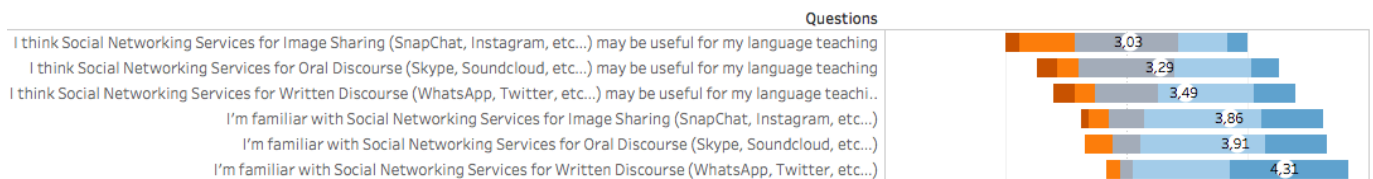


Figure 44: Post-test interaction tools

however, bank on more features than they had originally put their faith in – cf. Figure 44. While they still showed a slight preference for oral and written interaction, they would not consider image sharing features to be particularly useful for their language teaching.

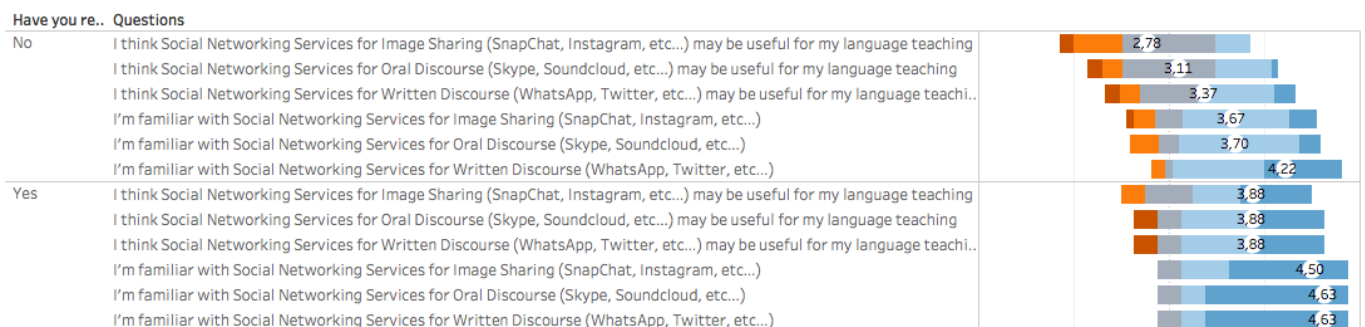


Figure 43: Post-test interaction tools by 'Have you received any training on the use of mobile devices in the classroom?'

9.1.5. Writing skills – a divided opinion

Pre-test

The results from the pre-test – cf. Figure 46 indicate how little the teachers knew and used NLP tools for writing. The only feature they were relatively familiar with were spell checkers, which they did not often use. A cross examination of the results according to the teachers' years of experience did not produce any significant difference. Interestingly, Figure 45 shows us that those who declared they had received training on the use of OER in the classroom did not feel much more knowledgeable or inclined to use the mentioned tools than OER novices. The same goes for those who have been trained on the use of mobile phones in the classroom – cf. Figure 47.

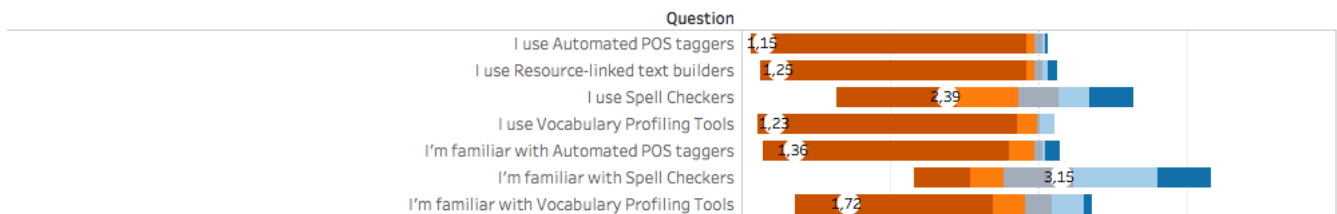


Figure 46: pre-test writing skills

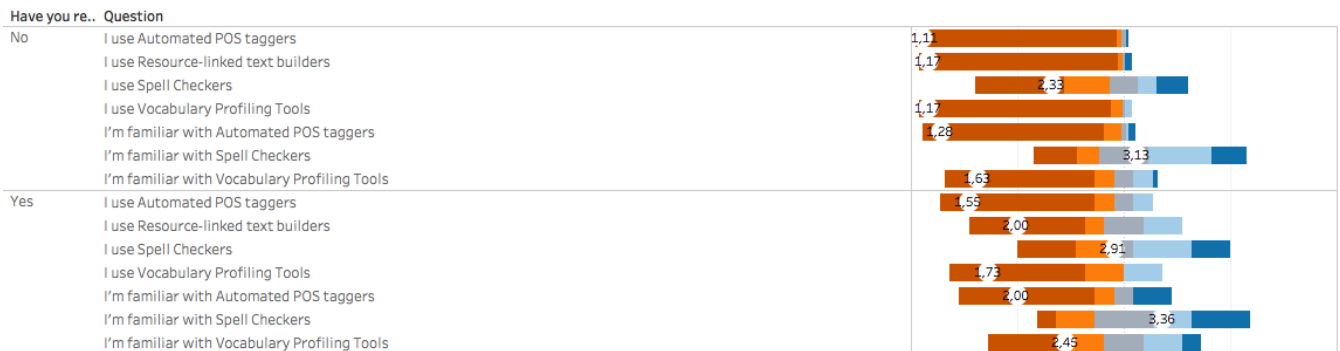


Figure 45: pre-test writing skills by 'have you received any training on the use of OER in the classroom?'

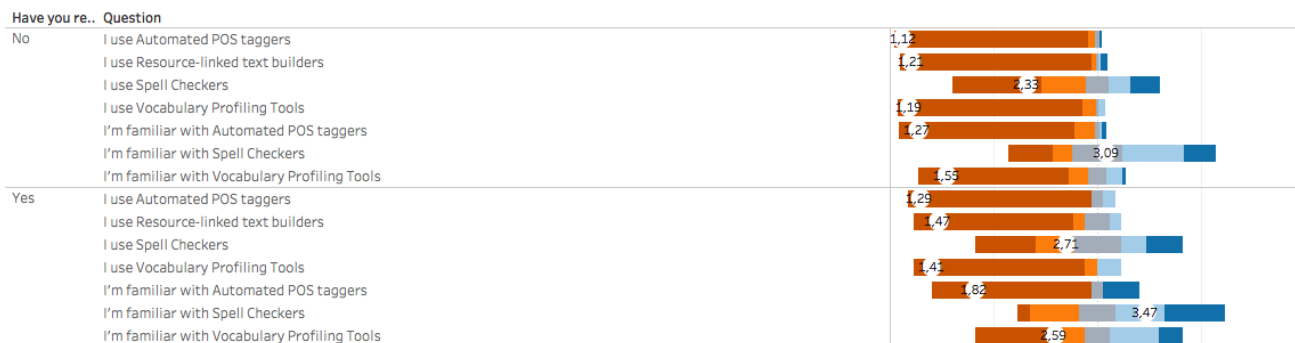


Figure 47: pre-test writing skills by 'have you received any training on the use of mobile devices in the classroom?'

Post-test

According to the post-test results from Figure 48, the TELLOP training managed – to some extent – to familiarize the trainees with such resources as Resource-linked text builders and vocabulary profiling tools. The teachers were also moderately convinced of their usefulness for language teaching. POS taggers on the other hand were dismissed as effective tools for language teaching by most trainees and the average answer level shows that they barely felt they mastered the topic after having taken the course. As for spell checkers, their relevance for language teaching was apparently reinforced by the TELLOP training.

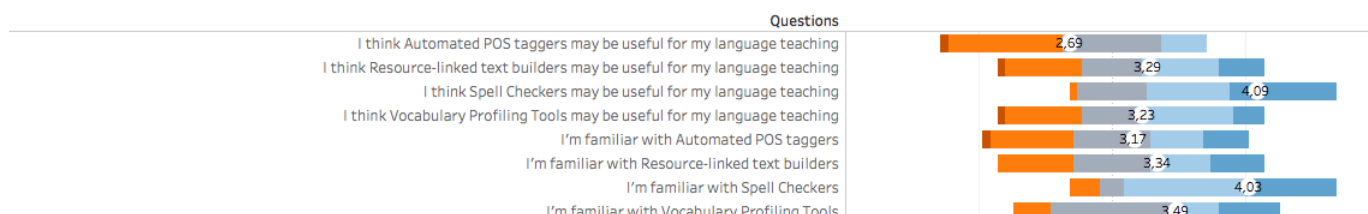


Figure 48: post-test writing skills

Astonishingly, a cross examination of the same results according to whether or not the teachers had received previous training on the use of OER in the classroom – cf. Figure 50 – does not produce any tangible variation. Figures Figure 51Figure 49 bring an interesting perspective as they demonstrate how training or encouraging (pre- or in-service) teachers to use mobile devices in the classroom has a positive impact on their perception of some of the writing tools examined.

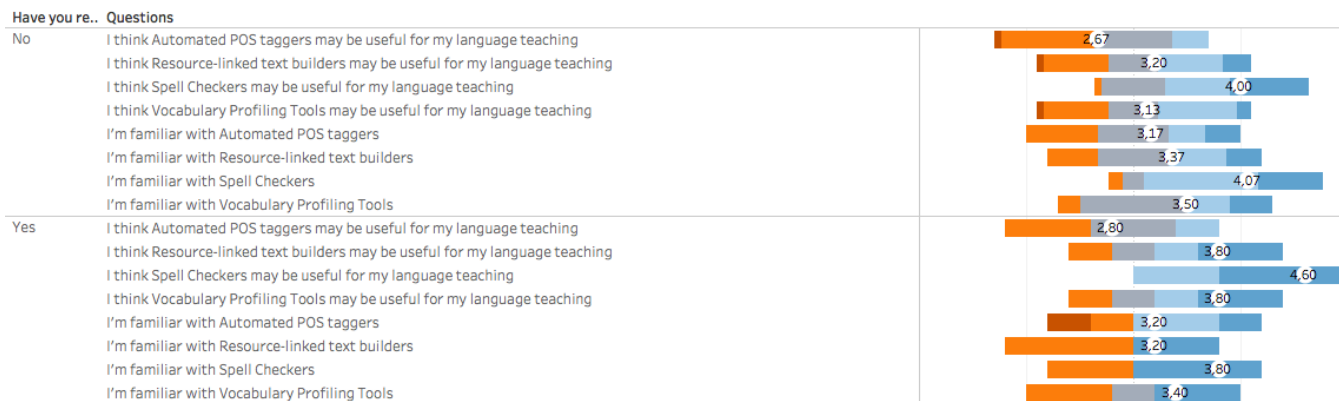


Figure 50: post-test writing skills by 'Have you received any training in the use of OER in the classroom?'

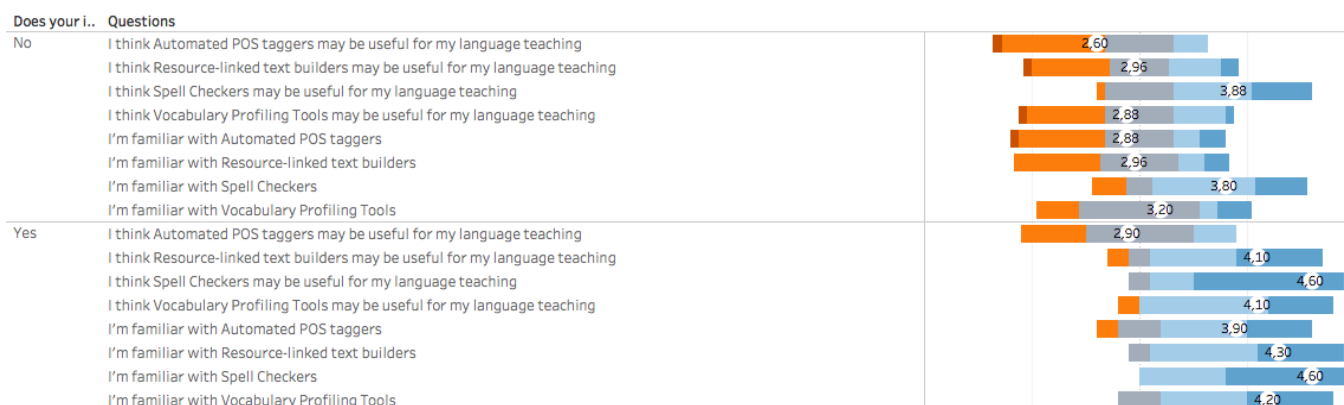


Figure 51: post-test writing skills by 'Does your institution foster the use of mobile devices in the classroom?'

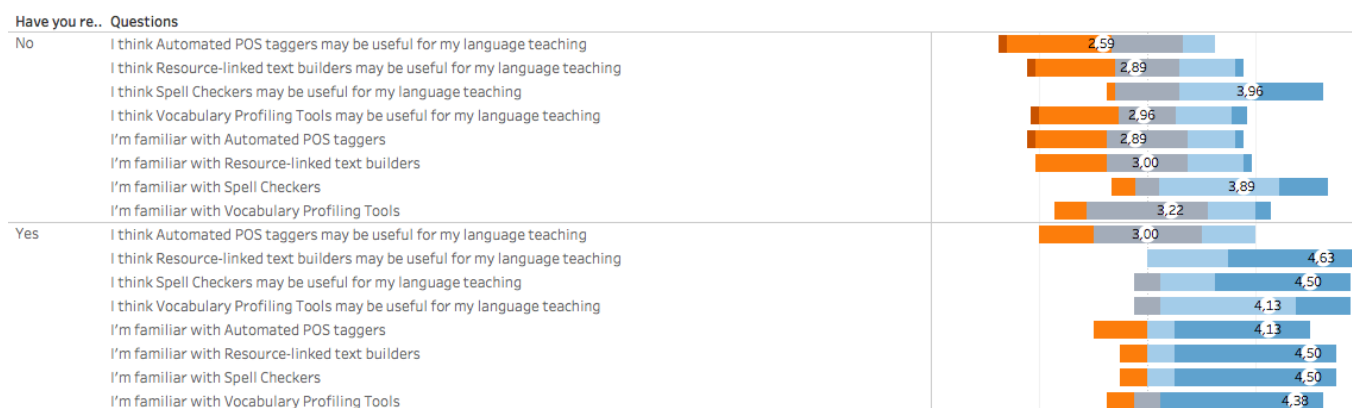


Figure 49: post-test writing skills by 'Have you received any training on the use of mobile devices in the classroom?'

9.1.6. Reading skills – no new trick for old dogs

Pre-test

Figure 53 depicts an even poorer portrait of the teachers' acquaintance with reading NLP tools than with the writing ones. When differentiating between those who had previous knowledge on OER and those who did not, the picture is only slightly brighter on the experts' side – cf. Figure 52. The results for teachers who had received training on the use of mobile devices or were encouraged to use them in the classroom yielded similar numbers.

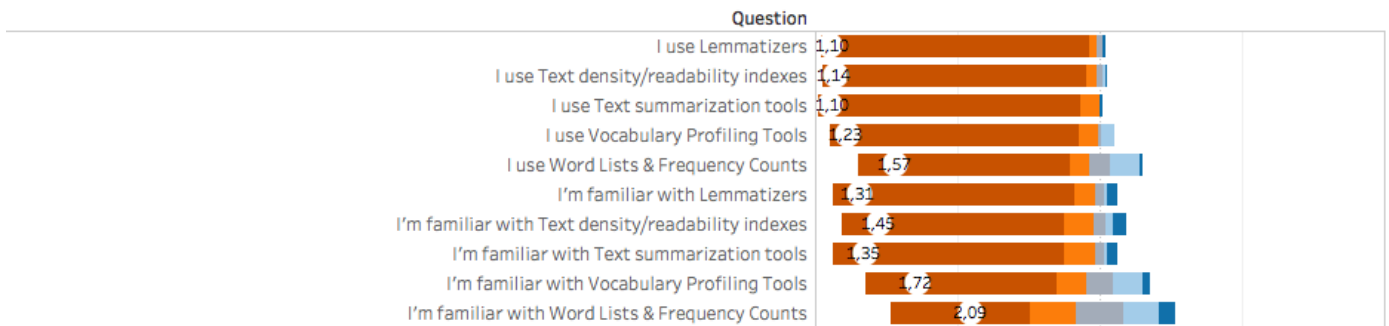


Figure 53: pre-test reading skills

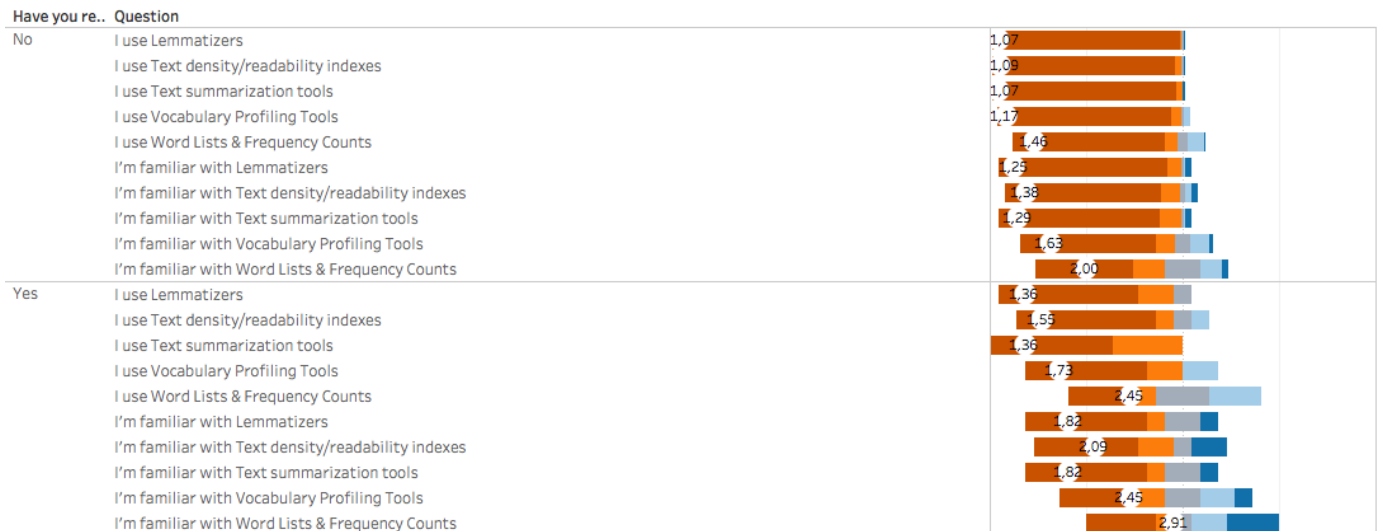


Figure 52: pre-test reading skills by 'Have you received any training on the use of OER in the classroom?'

Post-test

Once again it seems the TELLOP training managed to provide sufficient information for the teachers to feel competent on the matter of several reading NLP tools – cf. Figure 54. Apart from lemmatizers, the trainees would consider the other tools presented to be relatively useful for their language teaching.

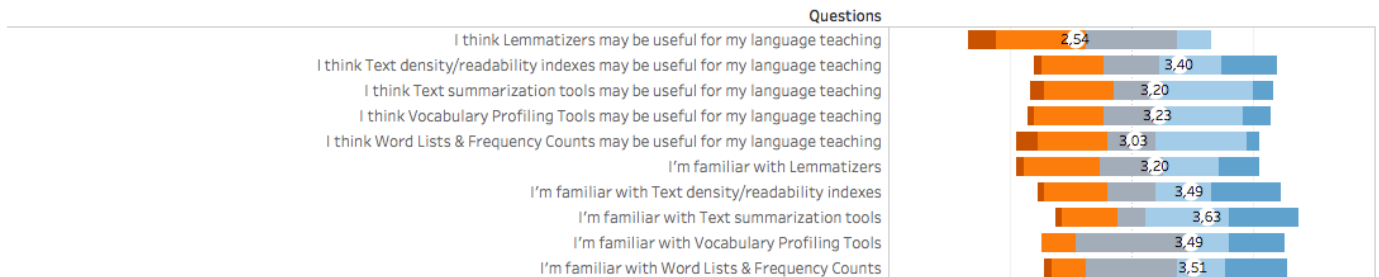


Figure 54: post-test reading skills

Similarly to the results for writing tools, the three following figures (Figure 55Figure 56Figure 57) demonstrate how the most important factor for trust in NLP reading tools is not previous OER training but rather training on mobile devices and whether or not the teacher's institution fosters their use in the classroom.

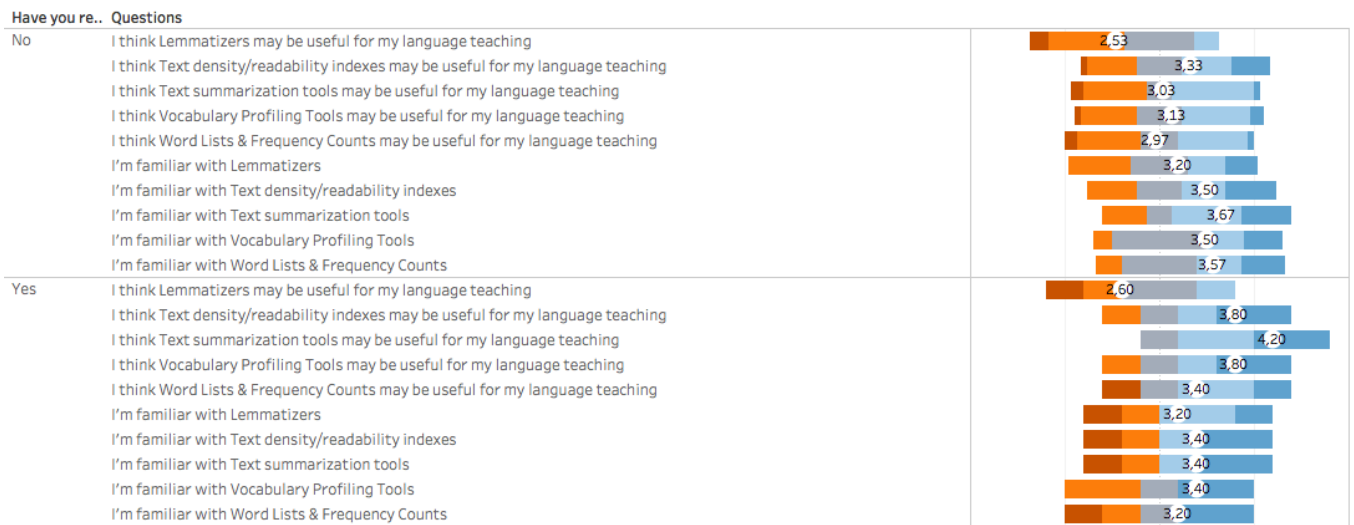


Figure 56: post-test reading skills by 'have you received any training on the use of OER in the classroom?'

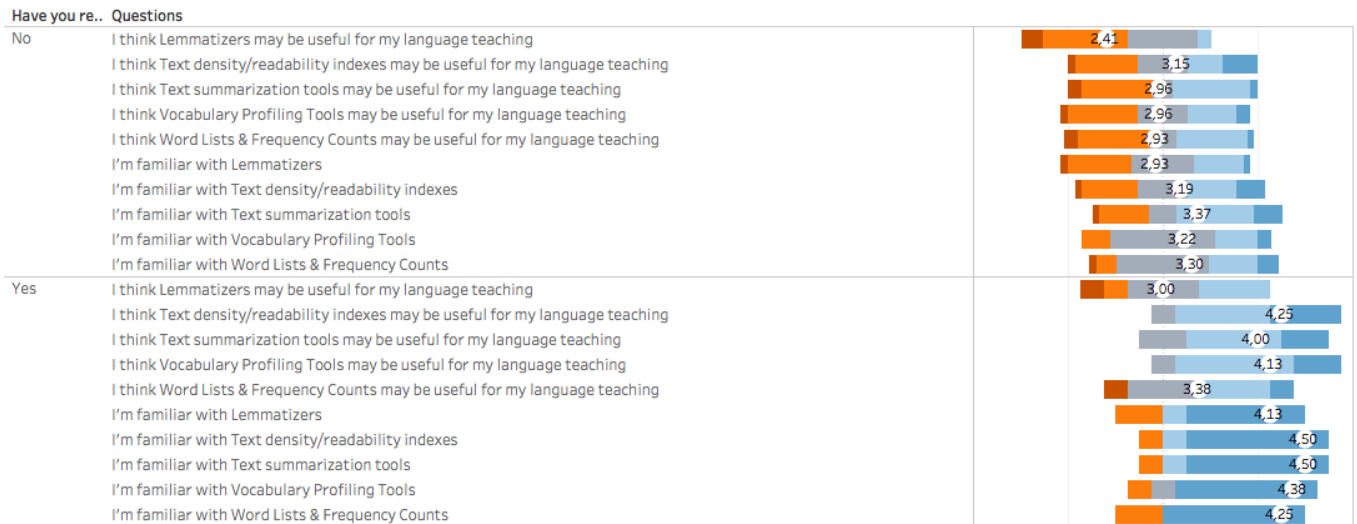


Figure 57: post-test reading skills by 'Have you received any training in the use of mobile devices in the classroom?'

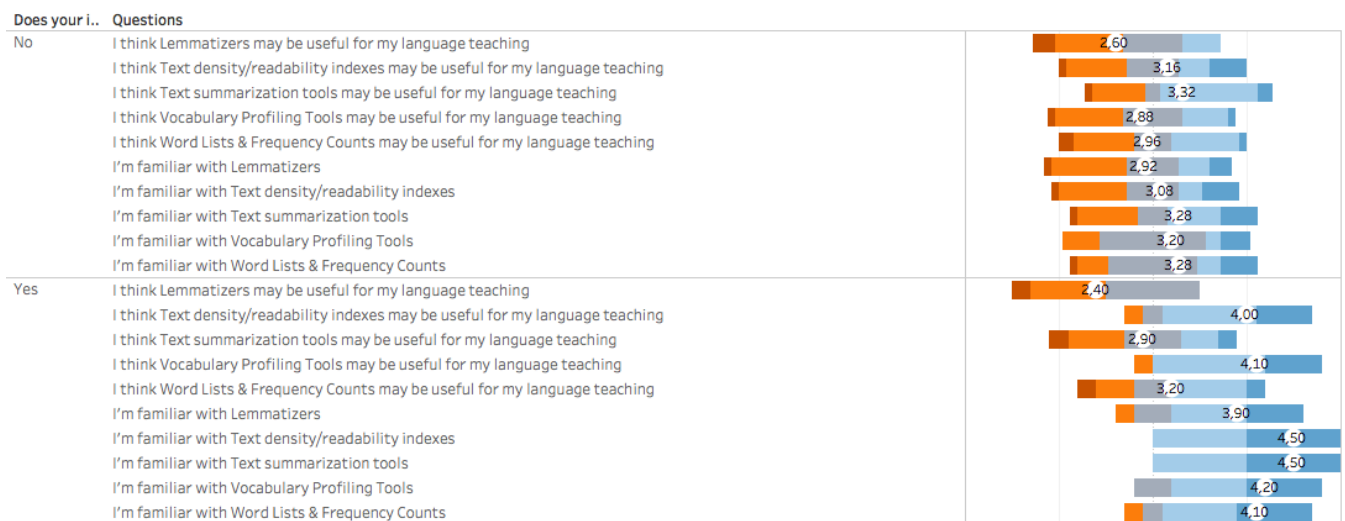


Figure 55: post-test reading skills by 'does your institution foster the use of mobile devices in the classroom?'

9.1.7. Intermediate conclusions

As a conclusion, the participants seemed to have entered the TELLOP programme with limited previous knowledge on OER in general but nonetheless with a positive mind-set and ambitious expectations, especially for the ones who had already been trained on the matter. Whether or not the respondents felt their institution fosters the use of mobile devices would have no impact on their motivation a priori. The post-test results cast a more nuanced light on the trainees' initial optimism since, after taking the TELLOP program, the teachers working in a non-mobile-friendly environment were less inclined – although positively so – to use OER than those teaching in more ICT-oriented schools. Finally, no matter the experience or environment of the education professionals, they agreed on one aspect of the presented resources; they do not all seem easy to implement in a classroom.

In terms of text to speech technologies the pre-test depicted an equally unaware and non-experienced audience across all teaching experience levels, although the teachers who had already taken OER training and those who worked in a mobile-friendly environment felt slightly more at ease with the concept. Such low pre-test scores made for an all-the-more striking turn of events in the post-test analysis, which shows overall enthusiasm for text-to-speech technologies. This sudden confidence in such tools remains surprising as the respondents still did not consider themselves to be particularly familiar with them after the TELLOP training, which suggests they have received more motivating and convincing arguments than actual knowledge or knowhow on the subject.

The vocabulary acquisition questions of the pre-test led to similar conclusions as to the participants' ignorance regarding vocabulary-oriented NLP tools, whether they had taken a previous course in OER or not. Two resources however stood out as being much more popular among teachers, i.e. online dictionaries and online collocation dictionaries. The post-test results indicated a comparable preference for the two aforementioned tools whereas the other three failed to make much of an impression; word clusters, corpora and specialised corpora generated tepid reactions on average, even though they scored slightly better among mobile-trained respondents and among teachers working in a mobile-friendly environment.

The teachers' perception of interactive tools before taking the TELLOP training programme was mainly directed towards their oral and written affordances. When comparing the pre- and post-test results, it seems the online course provided the trainees with knowledge on the matter, but failed to really convince them of the usefulness of picture or sound sharing features for their language classes.

The most novel items from the TELLOP training so far are writing NLP features. The trainees indeed went from a quasi-inexistent knowledge of most tools to an average confidence in their mastery of the subject. Despite this, their faith in the usefulness of POS taggers remained quite weak. Resource-linked text builders and vocabulary profiling tools encountered tepid enthusiasm as well. Spell-checkers, on the other hand, were already well known and used by the teachers before they took the training, but they cemented themselves through the training sessions as relevant tools for language teaching. Astonishingly the fact that the teachers had received previous training on OER in the classroom did not influence their post-training opinion, compared with that of OER novices. What did prove to be an influencing factor in their trust in NLP writing tools, however, is their acquaintance with mobile devices in the classroom.

Even less known by the future participants were the presented reading-oriented OER. Once again, the teachers felt more knowledgeable after taking the course and they would feel relatively confident in the features' relevance in a language class. The influence of the teachers' acquaintance and leeway in using mobile devices in the classroom proved, once more, to be a positive influencing factor in their trust.

A global trend seems to emerge where teachers felt more confident than competent in the use of text-to-speech and vocabulary acquisition OER. Their attitude towards interaction-, writing- and reading-oriented resources, however, was quite the opposite as they acknowledged their relative competence in the matter but would still be reluctant to use them in class. In the next section we will analyse the qualitative data from the various focus groups and assignments and strive to shed more light on this raw data.

9.2. Feedback: qualitative analysis

As part of the training process, the participants were required to write a one page reflexive essay on the segment they had completed each week. In the following section, we will analyse this individual feedback along with the various reactions posted on the platform forum. Together with the quantitative feedback from section 9.1 above, this will allow us to shed a different light on the teachers' opinion of the TELLOP training programme and the presented tools.

For the sake of clarity we have divided the next section according to each week's topic – similarly to the quantitative feedback section – and compiled the information into tables⁵, each of which displaying the same categories, separated on the basis of whether the comment came from assignments – privately shared between the trainee and the trainer – or from the forum section – visible to all trainees. The first row lists the advantages of the tools for the teacher (*+ teacher*) and the second one catalogues the presumed benefits of the tools for language learners (*+ learner*) according to the teachers. The third row compiles the various *issues raised* by the trainees and finally, the last one is composed of the *extra input* we collected. To provide a more visual overview of the information we have highlighted keywords and added '+++' to the items that were mentioned several times by the trainees.

Before proposing our intermediate conclusions we will analyse the strengths, weaknesses, opportunities and threats (SWOT) inherent to the TELLOP training module, based on the impressions of the trainer for the French-language version of the training, Julie Van de Vyver.

9.2.1. Text to speech

As shown in Table 2 the most appreciated aspect of text-to-speech tools was undoubtedly their ability to create listening comprehension material from any given text. The teachers also highlighted the variety of accents and intonations available on the tools as a plus point.

⁵ This part of the work has been done collaboratively with Julie Van de Vyver, the trainer for the French-speaking version of the TELLOP training module.

As for the many expected practical advantages to the learners, which were pointed out by the teachers, the most prominent one was how much autonomy text-to-speech technologies can bring to language students. They would indeed have permanent access to language pronunciation, which would allow them to work on the matter from home or during remedial classes. The teachers were also very appreciative of these tools, which would help their learners memorize written vocabulary with its corresponding pronunciation. Once again the richness of accents and intonations were deemed valuable for practice and so was the speed variation feature of the tools.

On top of these technical advantages of the tools, the trainees emphasized several motivational aspects of text-to-speech tools. According to them, the use of ICT is inherently motivating but practicing listening and pronunciation skills can also constitute a real self-confidence boost. The tools also meet the needs of more auditory learners, as well as pupils with learning difficulties, such as dyslexia, dyspraxia, etc. In the same vein, the teachers stressed the affordances of text-to-speech tools for differentiated learning.

Despite this high praise, the trainees criticized some aspects of the tools, starting with the fact that, except for one tool (Natural Reader), an internet connection is necessary to access the text-to-speech features. Along these lines, they would have liked to be able to download the output audio file, which is only feasible on the non-free version of the tools. A lack of grammar or spell check on the written input was pointed out, as well as a missed opportunity for a recording feature to play back the learner's voice for self-assessment of the pronunciation. Unfortunately, no tool provides the option to mix voices, which the teachers would have liked to use to create dialogues.

The forum discussions and assignments allowed the trainees to express their opinion on some specific tools and to add their own contribution to the list. Acapela-box and Quizlet met the approval of a vast majority of the language teachers and many other tools were mentioned, such as the built-in text-to-speech feature of Apple, to name but one.

	Assignments	Forum
+Teacher	<ul style="list-style-type: none"> - Creating listening comprehensions +++ - address different accents, intonations, phraseology - Differentiated instruction through students' autonomy while using the tools - Supplement classroom material with various short audio files 	<ul style="list-style-type: none"> - Text to speech to create listening comprehensions - Text to speech to address students in different accents
+Learner	<ul style="list-style-type: none"> - practicing pronunciation, intonation - at any time and place : at home, remediation, ... - Practicing listening skills - Comparing and getting accustomed to accents - Memorizing vocab with pronunciation - Autonomy +++ - Adjusting and progressing in terms of speed, intonation, mood - Assisted reading for pupils with learning difficulties (dyslexia, dyspraxia ...), - Accessing audio for any written material - Motivation through ICT - Practicing for theatre play - Helps auditory learners - Boosts self-confidence 	<ul style="list-style-type: none"> - Text to speech to practice pronunciation + intonation at home - Text to speech to compare accents - Memorizing vocab with pronunciation - Autonomy - Varying speeds and intonations
Issues raised	<ul style="list-style-type: none"> - Download feature missing in free versions (except fromtexttospeech (NL), text-to-speech-demo (NL)) - Only works with internet connection +++ (except NaturalReader, EN-FR) - Not user-friendly (Lextutor) - result sounds artificial - No grammar- or spellcheck - No feature to record your own pronunciation and compare - Few resources in NL 	<ul style="list-style-type: none"> - Download feature missing in free versions - Dialogue feature missing (several voices)
Extra input	<ul style="list-style-type: none"> - <i>Built-in text to speech on Apple</i> - <i>Languageguide, visual + audio vocab.</i> - Fromtexttospeech (no NL) - text-to-speech-demo (no NL) - Howjsay (EN), pronunciation - Acapela +++ - Ttsreader (no NL) - Voxygen - Readspeaker.com - Wordreference, dictionary + forums - Quizlet +++ - Reverso, dictionary - Macmillandictionary (EN) - Oddcast - Nedbox (NL) 	<ul style="list-style-type: none"> - Quizlet > speller mode - Acapela, text to speech - Built-in text to speech on Apple - Wordreference, dictionary + forums - Howjsay (EN), pronunciation - Languageguide, visual + audio vocab.

Table 2: TELLOP trainee feedback on pronunciation section via assignments and forum

9.2.2. Vocabulary acquisition/analysis

The presented vocabulary acquisition/analysis tools were met with enthusiasm by the TELLOP trainees – see Table 3. As teachers, they welcomed the access they were afforded to authentic material and collocations. They considered the tools to be an excellent way to extend their own vocabulary database, as well as that of their teaching material. They also singled out the AntConc software as a pertinent tool to proofread their students' assignments.

Access to vocabulary extension tools was also highlighted as a plus for language learners. More particularly, free access to collocation dictionaries and authentic, conceptualized and exemplified material would allow them to expand their vocabulary range. On top of that, the trainees pointed out how the dictionary features could make way for various memorizing techniques, using motivating and visual ways of displaying vocabulary, therefore constituting an efficient differentiation tool. The teachers also saw an opportunity to help their learners gain autonomy, which – they insisted – would require previous training on how to use the dictionaries properly. Finally, the language professionals valued the websites as ways to have their pupils reflect upon how a language works.

Despite this rather positive feedback on vocabulary acquisition tools, the TELLOP trainees voiced their concern regarding more than one aspect of the websites, both privately in their assignments and publicly on the training forum. Many criticized the complexity of the tools themselves, as well as the jargon used to analyse the language. Teachers were doubtful as to the actual use of going to such lengths of language analysis when they really want their students to first and foremost master communicative skills. The time-consuming technicalities of looking up vocabulary on the mentioned websites, but also of simply accessing the internet at school was also considered as a hindrance, especially in schools where the use of smartphones is prohibited.

A vast majority of the trainees referred to supposedly more accessible tools, such as Linguee, Quizlet, Wordreference or wordcloud generators as a simpler way to give language learners access to visual or contextualised vocabulary. Some even recommended to go back to basics and closer to everyday life tools by using the affordances of word processors or of the automatically generated collocations in smartphones dictionaries.

	Assignments	Forum
+Teacher	<ul style="list-style-type: none"> - Access to authentic material - Personal vocabulary extension - Vocabulary extension for teaching material - Collocations - AntConc used to correct assignments / check the understanding of some features 	<ul style="list-style-type: none"> - Access to authentic material - Personal vocabulary extension - Vocabulary extension for teaching material - Collocations
+Learner	<ul style="list-style-type: none"> - Vocabulary extension - Collocations (concept + examples) - Various memorizing techniques - Autonomy - Motivating and visual ways of discovering vocabulary - Important to teach the learners how to use dictionaries and tools - Phrasal Verbs complexity shown in a corpus - Free access to dictionaries - Differentiation tool (vocab lists creation) - Thinking about how the language works 	<ul style="list-style-type: none"> - Vocabulary extension - Collocations - Various memorizing techniques - Autonomy
Issues raised	<ul style="list-style-type: none"> - jargon v. user-friendly (content and lay-out) - complicated tool for beginners/secondary school learners - authentic context can be too complex - use of smartphones in classroom prohibited - internet connection in classroom - Learners lack computer literacy > priority to simpler tools - Corpora : far from the classroom reality, considered as a tool for professionals - Language analysis v. communication (aim at secondary school) - Time-consuming tools - Internet search sometimes easier and as effective (vs corpora) - Too specific for adult education 	<ul style="list-style-type: none"> - jargon vs. user-friendly - complicated tool for beginners - use of smartphones in classroom prohibited - internet connection in classroom - Learners lack computer literacy > priority to simpler tools
Extra input	<ul style="list-style-type: none"> - Collocations generated by smartphone built-in dictionaries - <i>Word processor spell and grammar check</i> - Linguee, translation in context - Real Academia (ES) - Quizlet, vocab. Memorization and Memrise - <i>Tagxedo</i>, wordclouds - Macmillan, WordReference - Mijnwoordenboek.nl; woordenlijst; taaladvies - Vocab MindMaps (CMapTools) - dictionary.cambridge.com - synonym.com - http://worditout.com/word-cloud/make-a-new-one - Collocations ES : http://www.dicesp.com/paginas - Ozdic.com 	<ul style="list-style-type: none"> - Collocations generated by smartphone built-in dictionaries - Word processor spell and grammar check - Linguee, translation in context - Quizlet, vocab. memorization - Tagxedo, wordclouds

Table 3: TELLOP trainee feedback on vocabulary acquisition section based on assignments and forums

9.2.3. Interaction

The following week was devoted to interaction OER, which – as depicted in Table 4 – generated much debate among the trainees. Some advantages of those online sharing tools were pointed out by several teachers: they allow them to share info and content with their students fairly easily and permit the creation of new and various tasks, such as webquests for instance. Teachers could also use these OER to provide either more individualized feedback or else decide to make it visible to the group.

In terms of how the learners could benefit from interaction tools, the trainees were quite emphatic, particularly through their individual assignments. The word ‘easy’ came up several times to describe the simplicity with which documents and information can be shared. Moreover, Interaction OER are considered as a motivating factor to learners in several respects. First, interaction websites make it possible for each student to communicate privately with the teacher, thereby alleviating the potential fear of making mistakes in front of their peers. The opposite is also true: when working on the website, the learners can share and collaborate with other students, potentially helping and correcting each other, thus breaking the traditional teacher-learner relationship as the one and only learning medium. In addition, teachers perceive many opportunities in interaction tools. First, they can create project-based learning opportunities. They also allow the learners to be in touch with the target language when they are outside the classroom, or even on the move. Besides, students can get in touch with natives of the target language through these websites. Finally, just like any online tool, interaction OER present the advantage of immersing learners in a media environment, therefore allowing for an opportunity to develop their media literacy.

These numerous positive aspects of interaction OER were nonetheless shadowed by more sceptical feedback from the trainees. On top of the usual practical concerns linked to using the internet at school, expressed their apprehensions regarding legal issues with underage users and even potential online bullying. They highlighted the importance of drawing a line between private and school life. Teachers also feel they would shoulder the responsibility for anything their students might publish, therefore fearing their lack of control on language mistakes of any kind. A need to teach media literacy and to provide guidance for the students when browsing and interacting online was put forward as a solution.

Interestingly, the individual assignments and forum discussions on that week gave way to a lot of extra input, which - whilst not necessarily matching the topic - led to the emergence of a trend in the type of tools that were brought up. Most of the tools the teachers already use allow them to keep the information within the classroom and within their grasp at the same time. Websites such as Smarschool, or Socrative, Padlet or Office 365 all ensure a relatively secure and private working environment. When the TELLOP trainees mention Twitter, they recommend its use for receptive purposes only, encouraging their learners to create vocabulary lists based on tweets.

	Assignments	Forum
<i>+Teacher</i>	<ul style="list-style-type: none"> - Sharing info and content with learners - Creation of new activities (selfie video) - Webquest - Correction of video content : easy feedback - Easy feedback and visible feedback by everyone - Video or audio on messenger : more individual feedback 	<ul style="list-style-type: none"> - Collaborating with Office 365 - Sharing info and content with learners
<i>+Learner</i>	<ul style="list-style-type: none"> - Private teacher-learner online communication > no fear of making mistakes - (Adult) learners collaborate, communicate among themselves, correct each other - Shared documents and information – easy access - New use of a familiar tool (easy) - Practice helps them get fluent - Less fear of communicating - Motivation (no schoolwork) and you are recognized by peers for your work - Video : can practise their text several times - Meaningful tasks - Project-based learning - Direct access to native speakers - Learning media literacy - Opportunities for learning on the move - Keep contact with the language outside the classroom 	<ul style="list-style-type: none"> - Private teacher-learner online communication > no fear of making mistakes - Adult learners collaborate, communicate among themselves vs. teachers - Shared documents (etherpad, drive)
<i>Issues raised</i>	<ul style="list-style-type: none"> - Social networks – legal issues with underage learners → platforms? (private vs. school life) - ! bullying ! bad influence - Access to technology in classroom + at home? - Smartphone use in classroom illegal - Image rights - No feedback or correction (skills acquired?) Responsibility of teachers for things that are published - Lots of notifications - No motivation from the teacher or the learner to access social networks - What is new is exciting but for a while 	<ul style="list-style-type: none"> - Online servers = energy waste - Social networks – legal issues with underage learners - ! bullying ! - Access to technology in classroom + at home? - private vs. school life - Smartphone use in classroom illegal

	- Need to teach media literacy and to guide the students (content of the activity, organization)	
Extra input	<ul style="list-style-type: none"> - <i>Selfie compilation on specific theme</i> - <i>Wetransfer > short deadline, reactivity</i> - <i>Quizlet > mobile, offline, frequent memorization, games live</i> - <i>Fleex.tv (EN>FR), closed captioning +</i> - <i>Hello Talk > learner – native chat</i> - <i>Smartschool, google classroom, Moodle : online educational platforms</i> - <i>LinkedIn, professional network > teacher – learner recommendations</i> - <i>Getkahoot, live quizzes and surveys</i> - <i>Pinterest, pinning + sharing content</i> - <i>Socrative, live quizzes and surveys</i> - <i>Twitter : vocab list</i> - <i>Language exchange (penpal)</i> - <i>Wiki</i> - <i>Gmail for communication</i> - http://www.sms-taal.nl/ - http://www.afreesms.com/freesms/ - <i>Edmodo</i> - <i>Collaborative writing : padlet / google docs & sheets</i> - <i>Picozone.nl (mini magazine – writing)</i> - <i>Free mobile apps (charades, heads up, etc.)</i> - <i>Office 365, Workplace, Facebook, Google for Education</i> 	<ul style="list-style-type: none"> - <i>Selfie compilation on specific theme</i> - <i>Wetransfer > short deadline, reactivity</i> - <i>Quizlet > mobile, offline, frequent memorization</i> - <i>Fleex.tv (EN>FR), closed captioning +</i> - <i>Hello Talk > learner – native chat</i> - <i>Smartschool, online educational platform</i> - <i>MOODLE, online educational platform</i> - <i>LinkedIn, professional network > teacher – learner recommendations</i> - <i>Getkahoot, live quizzes and surveys</i> - <i>Pinterest, pinning + sharing content</i> - <i>Socrative, live quizzes and surveys</i>

Table 4: TELLOP trainee feedback on interaction section based on assignments and forums

9.2.4. Writing skills

The listed advantages of OER writing tools for teachers (see Table 5) astonishingly refer to more reading-oriented features. The trainees indeed highlight the usefulness of such websites to identify the language level of authentic material, create vocabulary lists or exercises based on word frequency or highlight the most salient features of a text.

Only when it comes to having learners use the tools do the teachers refer to actual writing features. Writing skills OER could improve the vocabulary range and spelling of the students, help them identify the level of their own productions and make them become more critical of their own productions by analysing their texts. According to the TELLOP trainees these OER provide personalised feedback, which could not only allow the learners to identify their own recurring mistakes, but also to create individualised vocabulary lists. The tagging of parts of speech (POS) is also perceived as a plus as it would help the writers check the consistency of

their own sentences, as well as provide ground for comparison of POS between two languages. Finally, the teachers appreciate how visually relevant the OER analysis appear to be. As for the other types of OER, some of the language teachers came up with the necessity to raise their pupils' awareness about the tools that are available, their functionalities and drawbacks.

Some issues were discussed in the trainees' individual assignments, i.e. the complexity of POS and their questionable use for non-expert learners aiming at communicative skills. On top of that the OER websites and software themselves were often considered too complicated and not user friendly. Another question was raised about the fact that taggers only take the 'word' unit into account, leaving out larger compounds, such as idioms or phrases. The extra input from the forums and assignments once again referred to level assessment tools, dictionaries and spellcheckers – Text Inspector, Wordreference, nlfacile – which border reading skill features.

	Assignments	Forum
<i>+Teacher</i>	<ul style="list-style-type: none"> - Identifying level of authentic material - Frequency : base for vocabulary lists + identify the level of pupils' productions - Highlighting salient features of texts (e.g. modals) - Focusing on the most frequent terms in pre-reading exercises. 	<ul style="list-style-type: none"> - Identifying level of authentic material
<i>+Learner</i>	<ul style="list-style-type: none"> - Vocab. Extension (synonyms) - Identifying and comparing POS in two languages - Spellcheckers : useful 'assistant' to correct own productions at home or in class - identifying the level of own productions (varied vocab) and improving it - Raising awareness about the tools that are available to help the learners, their functionalities and the drawbacks. - Analysing their writing can help them be more critical on their productions and meet the teacher's requirements more easily - Show the importance of some frequent basic words - Visual aspect! - Own recurrent mistakes - POS : focus on verbs to check the consistency of the sentences - Personalization of vocabulary lists (differentiation) 	<ul style="list-style-type: none"> - Parts-of-speech (EN), identifying and differentiating parts of speech in own productions - Vocab. Extension (synonyms)
<i>Issues raised</i>	<ul style="list-style-type: none"> - Spell and grammar checkers : not accurate enough and don't focus on all language aspects - Younger pupils : can't guess if correction is relevant . - POS difficult in French! so POS taggers too complex + no communicative approach of the language 	/

	<ul style="list-style-type: none"> - Complex to install a software programme on the school computers - Lexical analysis works on words and not on idioms, phrases,... - Wordfrequency : not for free - Most of the tools are not reader- and user-friendly - Complex tools that some teachers don't understand 	
Extra input	<ul style="list-style-type: none"> - Roadtogrammar (EN), CEFR level text analysis - Wordsmyth (EN), educational dictionary - <i>Lexirex, beginner vocab.</i> - <i>Wiktionary, Word frequency lists</i> - Word processor spell + grammar check - Wordreference - Linguee - Text inspector from English Profile - Antidote (for French but is being developed for English) : not for Free - https://languagetool.org/ (available in 20 languages) - Spellchecker for Dutch : www.nlfacile.com/speller - boek-verslag.nl/woorden-tellen.html : wordcounter - woordentellen.be : sorts the words by frequency - Crr.ugent.be/isubtlex/ : frequency vocab list - Spelcheck.nl/tekstcontrole 	<ul style="list-style-type: none"> - Roadtogrammar (EN), CEFR level text analysis - Wordsmyth (EN), educational dictionary - Lexirex, beginner vocab. - Wiktionary, Word frequency lists - Word processor spell + grammar check - Jspell, online spellcheck - Wordreference - Linguee

Table 5: TELLOP trainee feedback on writing skills section based on assignments and forums

9.2.5. Reading skills

Table 6 summarizes the feedback received from the TELLOP trainees on reading skills OER. The teachers saw the advantages of tools that would identify the language level of a text, therefore allowing them to simplify some segments if need be. They really valued the use of websites that create vocabulary exercises based on specific texts. As for the summarizing feature of some OER, they would use it to search for and select relevant texts for their audience.

Numerous aspects of the tools presented were listed as possibly helpful for the language learners' reading. The fact that pupils have immediate access to definitions and audio versions of their text would help them save time and make them more autonomous and active readers and could help students with difficulties achieve challenging reading tasks. The various affordances of these features would allow the learners to use a text as a basis for vocabulary extension, pronunciation and contextualised grammar exercises. Finally, teachers consider the summarizing software as an opportunity for their pupils to get a first glimpse of a longer text,

but also to analyse the quality of the information within the context of a class on summarizing skills.

As was the case for several of the OER presented, the teachers' reactions dwelled on a general lack of user friendliness of the tools. Some of the teachers would not refer their students to summarizing tools as they would prefer them to learn how to perform that particular skill themselves. They deplored the fact that no socio-cultural aspects were taken into account in readability indexes and concluded that such tools should be used at home but not in a classroom environment.

	Assignments	Forum
<i>+Teacher</i>	<ul style="list-style-type: none"> - Identifying reading level of authentic texts with Flair - Transforming complex sentence into simpler one - Creating exercises based on vocab. From specific text - Adapting the level of the texts (readability score and suggestions) - Automatic summary : Selecting the relevant text for our audience 	<ul style="list-style-type: none"> - Identifying reading level - Transforming complex sentence into simpler one - Creating exercises based on vocab. From specific text
<i>+Learner</i>	<ul style="list-style-type: none"> - Access definitions - Hear audio of a text (different accents) also for people with learning difficulties - Valuable help when reading book autonomously (so no fear of reading) - Reading time saver - Selecting the relevant info when browsing the web - Active reading - Exercising chosen vocab. - Evaluating reading time and spoken time for presentations - Working on pronunciation and listening skills with hypertext books on Lextutor - Evaluating automatic summaries - Lextutor gives hints about the types of information we need when reading - Flair : highlighting some grammatical structures in a text - Using summaries to discover texts - Quantifying the salient features in a text - Helps weaker students achieve challenging reading tasks 	<ul style="list-style-type: none"> - Access definitions - Hear audio of a text - Valuable help when reading book autonomously - Reading time saver - Active reading - Exercising vocab.
<i>Issues raised</i>	<ul style="list-style-type: none"> - Complicated, not user-friendly - No automatic summary (pupils learn how to summarize) - Lemmatizers integrated in online dictionaries - Readability indexes : no socio-cultural aspects taken into account - A chart with readability levels and learners' level would be convenient 	<ul style="list-style-type: none"> - Complicated, not user-friendly - Computer screen not adapted to read long texts > tablet

	- Tools for home and not for the classroom	
Extra input	<ul style="list-style-type: none"> - Ereader built-in features - Vocabulaire magazine (EN, DE, ES > FR) - https://readable.io/ - Ororo.tv et fleex : sous-titres et hyperliens - www.englishcorner.vacau.com/teachers/teachers.html 	<ul style="list-style-type: none"> - Ereader built-in features - Vocabulaire magazine (EN, DE, ES > FR)

Table 6: TELLOP trainee feedback on reading skills section based on assignments and forums

9.2.6. Intermediate conclusions

The training kicked off in high gear with a widely appreciated OER: text-to-speech tools. Based on the questionnaire results it seemed the TELLOP trainees showed an irrevocable trust in text-to-speech technology despite their acknowledgement of a remaining lack of competency on the matter. The analysis of the qualitative data – i.e. individual assignments and forum discussions – enlightened us on the reasons for the popularity of text-to-speech OER among language teachers. The most appreciated use for such technology is the possibility for teachers to create listening material from written texts. However, some technical aspects of the presented tools were criticized, such as the impossibility to freely download output audio files or to create dialogues with more than one voice. The trainees nonetheless listed numerous potential advantages for their language learners, mostly in terms of motivation, autonomy, and differentiation. They also felt text-to-speech technology could cater for some specific needs of students with learning difficulties.

The teachers' reaction to the vocabulary acquisition, reading skills and writing skills tools was similar in several respects. They praised the access to authentic, contextualised and exemplified language in all three types of OER, as well as the opportunities for individualised and differentiated learning they afford. They also pointed out that they encouraged learners to reflect upon the structure and mechanisms of the target language, all the while raising reservations as to the actual use of taking the learners through such technicalities when they are mostly aiming at communicative skills. When cross analysing this qualitative feedback with the results from the questionnaires, the need for simplicity stands out as most teachers declare their preference for online dictionaries and collocations dictionaries or spellcheckers, disregarding more complex NLP tools. Another common thread can be found in the teachers'

feedback: difficulties in making their classroom into a connected environment. The post-test indeed revealed that those who work in a more mobile-friendly institution were more favourable to the use of OER in the classroom.

The black sheep of this TELLOP training module was undoubtedly the ‘interaction’ section. Although the trainees felt they had been provided with knowledge on the matter, they were still reluctant to make use of interactive OER with their pupils. The assignment and forum analysis brought to light a more detailed picture. Teachers consider those tools to be motivating in that they foster collaboration and project-based learning, whilst allowing for on-the-move and outside-of-the-classroom learning. If the usual practical ‘no internet connection in the classroom’ were raised, they were nothing in comparison to the trainees’ fear of legal and online bullying issues with underage pupils. Moreover, the language specialists felt they would be responsible for whatever their students would publish online, and dreaded any mistake that might be left out in the open. The feedback insisted on the importance of teaching pupils how to deal with social media in general, and of using tools, which restrict communication to the classroom or school.

9.3. Analysis by TELLOP trainer

In this section we will address the point of view of the French-speaking TELLOP trainer, Julie Van de Vyver, which she has compiled into a Strengths-weaknesses-opportunities-and-threats (SWOT) analysis of the training module.

Strengths

First of all, the trainer stressed the openness and ease of access to the module. She then drew the parallel with the OER practice, praised throughout the training itself, therefore making the training module an excellent example of what it advertises. Another advantage of organizing the TELLOP programme was to bring together a community of teachers to share their best practices. Finally, the outcome of the module was an official certification, which can only give credit to the concept and encourage teachers to join.

Weaknesses

In her view, managing the whole programme and giving feedback on each individual assignment was a time-consuming process, especially when having to deal with technical issues

on top of the normal conduct of the project. Some of the trainees lacked the necessary computer literacy and expertise to navigate the tools autonomously and some of the tools presented a complex and non-user-friendly layout. Another weakness of the programme resided in the fact that some languages – such as Dutch – were underrepresented compared to English and might leave the trainees with a sense of frustration. The trainer also pointed out that, despite the quantity of quantitative and qualitative feedback received from the trainees, none was gathered regarding the actual practice of OER.

Opportunities

The very first opportunity that was pointed out by the trainer was that of helping teachers discover how to use technology in their language courses. Having fostered collaboration and sharing of practices, one would also hope for potential future collaboration and for a follow-up training module.

Threats

In the prospect of conducting a second version of the training module, the trainer also envisaged the potential threats posed by the TELLOP program. When working with online resources, the main risk is to find oneself directed to an obsolete link, matter over which one has no bearing when working with OER. According to Van de Vyver, future trainers need to make sure they adapt to their audience when presenting them with the various OER in the TELLOP program. Another imaginable drawback would reside in the fact that the trainees would not apply the principles they have learned in their classroom, which the current setting of the programme does not allow room for adjusting, as no further contact is planned after the last training session.

Strengths	Weaknesses
Easy access to the module Free access to the module Sharing best practices Community Certification OER practice	Learners’ lack of computer literacy Time-consuming (management of the course) Time-consuming (assignment feedback) Technical issues Expertise needed for the teacher More resources for English learning No feedback on the OER practice Complexity of some tools

Opportunities	Threats
Discovering learning with technology	Out-to-date tools
Future collaboration	No adaptation to the audience
Follow-up course or 2 nd module session	No application from the teachers

Table 7: SWOT analysis of the TELLOP module by French-speaking trainer Julie Van de Vyver

10. Personal feedback

Drawing from the feedback received of the TELLOP trainees, we will devote this section to a more personal approach of the module. We will combine our approach as a TELLOP trainee with the theoretical models in section 5 to highlight several qualities of the module, as well as put forward some suggestions for improvement.

10.1. A great start

The TELLOP training module being organized by several European universities, we believe it projects a very professional image to education professionals. Furthermore, the very content presented in the programme was also created by academics, which only reinforces the legitimacy of the whole project. We also appreciated the fact that every session was anchored in scientific references.

Another plus point of the module was its focus on helping the trainees master the presented tools. We would concur with the majority of the feedback, stating that following the TELLOP module allows each participant to test the features of the various OER. The analysis of the pre-test questionnaire revealed how little the trainees knew about the presented resources before taking the training module. Despite our technology-hungry attitude in language teaching, we had not heard of most of the tools either.

Finally, we would like to highlight what we believe to be smart organizational choices on the part of the trainers. On the one hand, they managed to sequence a vast amount of information into categories, and distil it over several weeks of training. We believe this allowed the trainees not to feel overwhelmed by the quantity of material and organize their thoughts around coherent subjects. The trainers also chose to make use of the forum feature of the online

platform, therefore compensating for the distance learning setting and making room for interaction between the education professionals.

10.2. Suggestions for improvement

In the following section we will use a structure mirroring PART 1 section 5, building on the previously detailed models to analyse the TELLOP training module and make personal suggestions for a potentially different training setting.

10.2.1. A means to an end

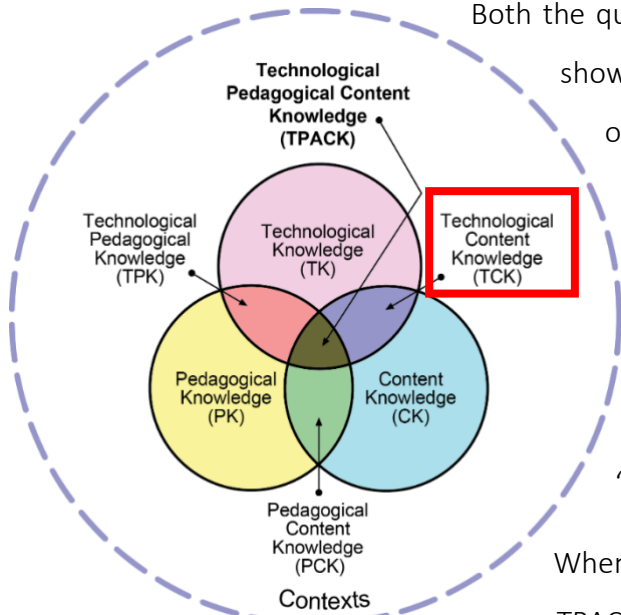


Figure 58: TPACK image (emphasis added) (<http://tpack.org>)

Both the quantitative and qualitative feedback from the trainees show a discrepancy between their own perceived mastery of some of the tools and their willingness to use them in their language courses. For instance, many of the presented writing tools were considered by the teachers as reading aids for their students, which shows that, no matter how clear the teachers are on “what” the tools are, they are not necessarily clear on “how” to actually use them.

When analysing the TELLOP training format according to the TPACK model – cf. section 5.1 above – it seems it focuses much more on the technical aspects of the presented tools,

as well as on the content – in this case SLA – leaving only little room for the pedagogical aspects. The TELLOP training programme would thus be located on the “Technological Content Knowledge (TCK)” intersection of Puentedura’s TPACK model – cf. Figure 58. The feedback from the questionnaires and focus groups indeed tends to show how the “[t]eachers [...] understand which specific technologies are best suited for addressing subject-matter learning in their

domains and how the content dictates or perhaps even changes the technology—or vice versa”. (Koehler & Mishra, 2009, p. 65)

With a view to integrating the pedagogical sphere into the training aspects, notions such as the following should be addressed within the perspective of the presented tools: “overall educational purposes, values, and aims [...] ,understanding how students learn, general classroom management skills, lesson planning, and student assessment.” (Koehler & Mishra, 2009, p. 64)

In our opinion, teachers would benefit from a training program, which uses their own pedagogical needs as a starting point and builds on those to propose technological solutions that are applicable in their specific SLA context. Koehler and Mishra’s (2009) notion of integrated technology, pedagogy and content knowledge (TPACK) emphasises the importance of the teaching context:

[e]ach situation presented to teachers is a unique combination of [technology, content and pedagogy], and accordingly, there is no single technological solution that applies for every teacher, every course, or every view of teaching. Rather, solutions lie in the ability of a teacher to flexibly navigate the spaces defined by the three elements [...] and the complex interactions among these elements in specific contexts.

(Koehler & Mishra, 2009)

To our mind, if one wants to encompass all three aspects of the TPACK model into a training module, one has to renounce exhaustiveness and favor quality over quantity. Developing each teacher’s capacity to steer its way through technology, content and pedagogy entails a more hands-on approach, working from examples of teaching sequences including the tools and making sense of “what”, but also “how” and most importantly “why” they can be used. As stated by Dudeney, Hockly and Pegrum (2013 Chapter 2, p. 5) “it’s more about the accompanying pedagogical approaches than the tools themselves.”

10.2.2. Bottom up!

If one were to bring about a Copernican revolution to the TELLOP module, one might as well put the very end-user at the centre of concerns and start from the learners themselves. The

training feedback showed how confident the teachers felt in their own mastery of the presented tools. When it came to actually implementing these in class, however, the trainees were much less optimistic, which can point towards both a hesitation as to how they could integrate the tools in their teaching sequences – as discussed in the previous section – and a lack of trust in the tools’ relevance for the ones mainly concerned, i.e. their pupils.

As discussed in section 5.3 above, Dudeney, Hockly and Pegrum’s list of “factors affecting digital activity choice” consecrates this *bottom-up* approach as it constantly puts the students’ needs first in its criteria, with an emphasis on (among others):

- Language needs: the particular language needs our students may have.
- Language wants: the types of language our students most want to learn or practise.
- Interests: what sorts of activities and topics motivate our students (see also Language wants above and Attitudes below).
- Attitudes: our students’ attitudes towards digital technologies in general as well as specific tools.
- Tech levels: the technological proficiency and confidence of our students.

(Dudeney et al., 2013)

With the aim of basing the TELLOP training module on the learners’ interests, we would recommend to gather testimonials of learners’ experiences with the tools in question before choosing the most relevant material. These contextualised examples could then be used as powerful leverage to engage the teachers in each theme of the module.

10.2.3. *Openness wasn’t built in a day*

Reflecting upon technology, de Brabandere – physicist and philosopher – stated that only when accompanied by new mental models could new resources unlock their full potential; otherwise, one could only be disappointed at best: “*Une nouvelle ressource ne peut libérer son potentiel que si elle s’accompagne de nouveaux modèles mentaux, sinon, dans le meilleur des cas, on est déçu.*” (de Brabandere, 2018) The ultimate aim of the TELLOP training module is to bring the

learners to perform new tasks through technology, which were “previously unconceivable” (Puentedura, 2018), therefore *redefining* their learning experience. If one expects the teachers to become experts in guiding their learners through these advanced tasks, one actually requires of them to step up to the highest rung of Puentedura’s SAMR model – cf. section 5.2 above – and *redefine* their teaching practices.

Such an endeavour entails time and commitment, which the current settings of the TELLOP training module allow for, as it is tailored over a four-week program. We would however recommend, along with a narrower selection of tools, that the training programme be spread over a longer period of time to integrate “adjustment” and “coaching” sessions for the teachers. Ideally, a smaller amount of teachers would be admitted into the program, with a view to making more time to discuss everyone’s concerns and questions.

On top of triggering a redefinition of teaching habits, the TELLOP training module introduces education professionals to the notion of *open* educational resources. As stated by Van de Vyver in her SWOT analysis – cf. section 9.3 above – the questionnaires gathered no feedback on actual OER practice. Nevertheless, the trainees’ feedback on interaction tools shows how averse they are regarding online sharing practices and how they favor tools, which allow them to keep things within their control. Whenever the notion of sharing was discussed, for instance, they were keen to keep the collaboration within the constraints of their classroom environment, fearing the consequences of publishing their pupils’ productions – as well as their own – on line. Having noted the extent of the challenge, we will explore the topic of redefining the teachers’ preconceptions in the next segments, first in terms of how they might decide to use existing OER, and then how to modify their teaching habits.

10.2.4. *It’s all personal ...*

According to Masterman & Wild’s (2011) analysis – cf. section 5.4 above – , whether or not teachers are willing to use OER depends on more than their pure relevance. The TELLOP training module scores more than once on the list of criteria as it offers *abundant, reliable* sources – most of them originating from universities – , which are continuously *updated*. Despite the pertinence of their content, the resources are nonetheless not clearly made relevant to the

teachers' purpose. Some of the tools are also not "explicitly developed for educational purposes" (Masterman & Wild, 2011, p. ii). Finally, several tools were deemed too complex to use in the classroom, which constitutes a strong deterrent in Masterman and Wild's list. The need for a more hands-on, simplified approach becomes once more apparent.

Interestingly, the two researchers have also highlighted OER-incentive factors that are inherent to each teacher's personality. We would postulate that "[a] recognition that combining materials that they have authored themselves with relevant materials from other sources may be both valuable [...] and valid" (Masterman & Wild, 2011, p. ii) requires much more than online interaction to support the trainees in their use of OER. Another basic criterion for the acceptance of the concept of OER is "[a] conceptualisation of teaching as, *inter alia*, helping students to become active, independent learners" (Masterman & Wild, 2011, pp. ii-iii). We believe such a vast notion calls for a real paradigm shift in attitude towards OER, which was not addressed in the training, and shows once again the necessity for human interaction and coaching, more than technical explanations and rational arguments.

Finally, Masterman and Wild draw our attention to a particular profile of OER-oriented teachers who show a "sense of responsibility for encouraging similar attitudes among their colleagues." (Masterman & Wild, 2011, p. iii) As we have suggested above, the TELLOP programme could be reserved for a smaller number of teachers with affinities for OER, to which we could offer tailored coaching and support, and who – we hope – would promote a healthy and positive message to their colleagues on a selected number of relevant resources for their own teaching context. Rather than creating technical experts who are hesitant to use OER, we should train ambassadors, convinced of the added value of our tools and willing to spread the news.

10.2.5. ... but should be experienced as a group

When it comes to redesigning personal values, one might believe the easiest way is to work with each individual. Nevertheless, Lewin's post-second-world-war behaviourism studies tell us otherwise. The researcher was able to bring out the powerful effects of group dynamics on individuals – cf. section 5.5 above. We would argue that the TELLOP training setting was mostly similar to Lewin's control group, in that it mainly exposed the trainees to a lecture on the

advantages and technicalities of the proposed tools. Despite the possibility for the teachers to use online forums, they could not interact as easily as in proper, face-to-face discussion groups.

In line with our *quality over quantity* train of thought, we envisage a training setting, which makes room for more in-person interactions. Ideally, each teacher should benefit from individualised coaching sessions on top of group discussions. Realistically, one could imagine a training module starting and finishing with face-to-face sessions between the teachers. Mimicking Lewin's design, the trainer would moderate an open discussion between the education professionals on the concept of OER, before introducing any of the tools *per se*. Another step would involve sharing pedagogically contextualised, learner-centred information on a few selected tools. For lack of resources, this could be done online via an on-line learning platform – similarly to what was done in the first TELLOP training module. The teachers would then be sent back to their own schools, knowing that each of them would be assigned a specific OER to test and report back on during a follow-up session. In the meantime, communication could be ensured via an online forum on the platform. We believe this proposed structure would empower the trainees and make good use of group dynamics to foster a real paradigm change in the teachers' perceptions of OER, and help trigger a true *redefinition* of their teaching habits.

10.2.6. *Reflexive showcase*

Finally, it seems an online training on OER and ICT should fully seize the affordances of technology, both with a view to facilitating remote communication and serving as a virtual showcase. The use of online forums to discuss the various tools is a first reflexive step towards using the internet in an educational environment. Another possible way to imbed ICT into the presentation of ICT tools would be to make use of videos, screen captures or even webinar technologies to organise the training sessions, therefore presenting the chosen tools not as standalone products, but rather as part of a larger educational scheme of 21st-century skills.

10.3. Personal Conclusions

The TELLOP training programme is an audacious first step into several aspects of foreign-language teaching. First of all, it bridges a gap between the world of research and that of educational practitioners. Its very format is no less ambitious: an online training module gathering more than eighty teachers over one month, in parallel with four different languages and countries, is undoubtedly a great endeavour. As for the selected tools, they present the originality of not only encouraging educators to make use of technology, but also of acquainting them with an entirely new mindset, maybe as revolutionary as technology: open resources.

The authority of the chosen tools and their explanations are not called into question. Their relevance however, could be put forward differently by giving priority to quality over quantity. In terms of content, for instance, focusing on fewer tools per topic would allow for a deeper coverage of their affordances. The training scenarios could also start from a learner-centred context, patterned after the practitioners' daily experience.

A qualitative focus could also be added to interactions throughout the module. Allowing for and creating more discussion between the trainees would be beneficial to their familiarization with the proposed tools. Inspiration could be drawn from other successful online training formats, such as MOOCs or Webinars, keeping in mind that the module setting itself should be an advertisement for ICT in education.

Finally, the notion and implications of OER should be at the centre of attention very early on in the programme and remain as a background theme throughout the sessions. The TELLOP module would be an extremely rich platform, on which to foster online collaboration. Why not encourage education professionals across languages and borders to embrace the ideals of UNESCO by co-creating resources and contributing their share to the "World Heritage of Humanity"?

CONCLUSION

The TELLOP training programme meant to bridge the outcomes of research with the day-to-day work of practitioners, therefore initiating language teachers to a selection of specific tools. In the span of five weeks, four partner universities have managed to deliver a high standard, scientifically rooted module to language educators around Europe. The trainees' impressions confirmed the success of this ambitious endeavour in proposing novel solutions to everyday tasks, all within a highly credible framework. These well-organized training sessions also proved to be an innovative showcase for open educational resources as well as cooperation on the web.

This module thus invited its participants to see beyond their technological abilities and enter the ample project of universally open resources and communication. The collaborating universities had to juggle with these many objectives in the air, one of which appeared to turn into a curveball. The teachers' feedback demonstrated some resistance to change in the realm of pedagogical openness. Despite a clear interest in the potential of online communication for language learning, few teachers felt completely at ease letting their pupils interact on the web. Moreover, in many cases, the educators' trust in the tools presented did not rest in their potential for language learning, but was rather impacted by their working environment's propensity towards online and mobile learning.

In other words, the TELLOP team has thrown the first pitch by creating a training module based on the spirit of online collaboration. It seems, however, that leading by example does not suffice. Our analysis has revealed a need to move the goalposts back and address not only the technicalities of a series of selected tools, but also the very mind frame necessary to fully embrace the concept of online collaboration. This ambitious project demonstrated that the mere presence of infinite possibilities does not necessarily draw in unanimous enthusiasm and that we are only in the early innings of a long ball game, involving a major mind-set shift on the part of language educators. In our opinion, any future edition of the TELLOP training programme needs to take this into account as a main starting point, as only by challenging the limits of the mind will we unleash the limitless potential for language learning in a 2.0 world.

APPENDIX

List of presented OER in the French-speaking version of the TELLOP training module

Pronunciation

<https://www.naturalreaders.com/>

<http://text-to-speech.imtranslator.net>

<http://www.fromtexttospeech.com>

<https://text-to-speech-demo.mybluemix.net>

Vocabulary acquisition

Dictionaries and collocation dictionaries

<http://www.oxforddictionaries.com>

<http://www.oxfordlearnersdictionaries.com>

<http://en.pons.com/translate>

http://dict.leo.org/ende/index_en.html

<http://forbetterenglish.com/index.cgi>

<http://www.linguee.com>

dle.rae.es/?w=diccionario

<http://www.duden.de>

<http://www.dwds.de>

<http://dict.uni-leipzig.de>

Visualizing collocations and word groups

<https://www.visualthesaurus.com>

<http://www.visualsynonyms.com>

<http://www.visuellesynonyme.com>

<http://wortschatz.uni-leipzig.de>

Corpora and corpus softwares

<http://quod.lib.umich.edu/m/micase>

<http://www2.warwick.ac.uk/fac/soc/al/research/collections/base>

<http://corpus.byu.edu/bnc>

<http://corpus.byu.edu/coca>

<http://www.linguistics.ucsb.edu/research/santa-barbara-corpus>

<http://www.learnercorpusassociation.org/resources/tools/locness-corpus>

Louvain International Database of Spoken English Interlanguage

<https://sourceforge.net/projects/leapcorpus>

www.dwds.de

<http://www.korpora.org/Limas>

<http://www.ids-mannheim.de/cosmas2>

<http://www.dwds.de/resource/kerncorpus>

<https://sourceforge.net/projects/leapcorpus>

<https://www.linguistik.hu-berlin.de/de/institut/professuren/korpuslinguistik/forschung/falko/standardseite>

<http://wikis.fu-berlin.de/pages/viewpage.action?pageId=554402458>

<http://www.spilloc.soton.ac.uk>

<http://www.laurenceanthony.net/software.html>

Interaction

Social networks for speaking

<https://www.messenger.com>

<https://www.whatsapp.com>

<https://www.skype.com>

<https://www.podomatic.com>

<https://soundcloud.com>

<http://mixlr.com>

Social networks for writing

WhatsApp

Twitter

Facebook

Google docs

www.lang-8.com

Social networks for sharing pictures

<https://www.pinterest.com>

<https://www.tumblr.com>

<https://www.instagram.com>

<https://www.snapchat.com>

<https://www.flickr.com>

Writing

Vocabulary lists and frequency calculators

<http://www.wordfrequency.info>

http://www.writewords.org.uk/word_count.asp

<http://www.wordcounter.com>

<http://www.textfixer.com/tools/online-word-counter.php>

<http://www.online-utility.org/text/analyzer.jsp>

Spell and grammar check

<http://spellcheckplus.com>

<http://freespellcheckers.com>

<https://www.jspell.com/public-spell-checker.html>

<http://www.gingersoftware.com/es/download>

<https://www.spellchecker.net/spellcheck>

Lexical profile

<http://www.lextutor.ca/vp/eng>

<http://www4.caes.hku.hk/vocabulary/profile.htm>

<http://www.sfu.ca/~msevier/WebVocabularyProfilerCS.htm>

<http://vocabkitchen.com>

<http://www.insightin.com/vocabulary/profiler.php>

POS taggers

<http://nlp.stanford.edu/software/tagger.shtml>

<http://ucrel.lancs.ac.uk/claws/trial.html>

<http://parts-of-speech.info>

<https://gate.ac.uk/wiki/twitter-postagger.html>

Reading

Lemmatizers

<http://textanalysisonline.com/nltk-wordnet-word-lemmatizer>

<http://textanalysisonline.com/nltk-wordnet-lemmatizer>

Automatic summarization

<http://autosummarizer.com>

<http://freesummarizer.com>

<http://textsummarization.net/text-summarizer>

<http://www.splitbrain.org/services/ots>

<http://textcompactor.com>

<http://tioconejo.net>

<http://misterfuu.com>

<http://www.splitbrain.org/services/ots>

Readability index

<https://readability-score.com>

<http://read-able.com>

http://www.online-utility.org/english/readability_test_and_improve.jsp

<http://purl.org/ical/flair>

Hypertext generators

http://lex tutor.ca/ra_read

<http://www.lex tutor.ca/hyp>

<http://sifnos.sfs.uni-tuebingen.de/VIEW>

BIBLIOGRAPHY

- Administration Générale de l'Enseignement et de la Recherche Scientifique. Programmes d'études des cours de langues germaniques (2000). Retrieved from <http://www.wallonie-bruxelles-enseignement.be/>
- Agence du Numérique, Wallonie. (n.d.-a). digitalwallonia.be. Retrieved 10 August 2017, from <https://www.digitalwallonia.be/>
- Agence du Numérique, Wallonie. (n.d.-b). Le programme Cyber-écoles. Retrieved 10 August 2017, from <http://www.awt.be/web/edu/index.aspx?page=edu,fr,010,500,010>
- Beaven, T. (2013). Use and Reuse of OER: professional conversations with language teachers. *Journal of E-Learning and Knowledge Society*, 9(1). <https://doi.org/10.20368/1971-8829/802>
- Buyse, V., Sparkman, K. L., & Wesley, P. W. (2003). Communities of practice: Connecting what we know with what we do. *Exceptional Children*, 69(3), 263–277.
- CECAFOC. (n.d.). Brochure 2017-2018. Retrieved from <http://enseignement.catholique.be/cecafoc/images/Brochure%20CECAFOC%202017-2018.pdf>
- CECP - F.E.L.S.I. (n.d.). Catalogue des formations en cours de carrière 2017. Retrieved from http://www.cecp.be/refeos/wp-content/uploads/2016/12/2016.12.23.Catalogue.ESAHR_.2017.pdf
- Cohen, L., Manion, L., & Morrison, K. (2013). *Research methods in education*. Routledge.
- Conole, G. (2010). An overview of design representations (pp. 482–489). Presented at the Proceedings of the 7th International Conference on Networked Learning. Retrieved from <https://pdfs.semanticscholar.org/25ce/72778dd44ead484a51d32d949c838644b16b.pdf>
- Conseil de la Communauté française. Décret définissant la formation initiale des instituteurs et des régents (2001). Retrieved from http://www.gallilex.cfwb.be/document/pdf/25501_000.pdf
- Conseil de la Communauté française. Décret relatif à la formation en cours de carrière dans l'enseignement spécialisé, l'enseignement secondaire ordinaire et les centres psycho-médico-sociaux et à la création d'un institut de la formation en cours de carrière (2002). Retrieved from http://www.gallilex.cfwb.be/document/pdf/26947_004.pdf
- CPEONS. (n.d.). Catalogue des formations de l'enseignement secondaire 2017-2018. Retrieved from http://www.cpeons.be/Files/files/Formation/Form_Sec_CEFA/Catalogue%2017-18_Final.pdf
- CRIFA, ULg. (n.d.). Curriculum AMTICE. Retrieved 29 August 2017, from <http://www.amtice.ulg.ac.be/>
- de Brabandere, L. (2018, March). *Réflexions sur l'évolution sociétale liée au numérique, changement de posture de l'enseignant, modification du rapport aux savoirs*. Presented at the Des clics en classe - Le numérique au service des apprentissages, Louvain-la-Neuve.
- digitalwallonia.be. (n.d.). Ecole numérique. Retrieved from <http://www.ecolenumerique.be/qa/>

- Dortier, J.-F. (2013, October). Sommes-nous devenus des mutants? *Sciences Humaines*, 205. Retrieved from <https://www.cairn.info/magazine-sciences-humaines-2013-10-page-1.htm>
- Dudeney, G., Hockly, N., & Pegrum, M. (2013). *Digital Literacies*. Harlow: Pearson.
- Enseignement et recherche scientifique, FWB. Socles de compétences. Retrieved from <http://www.enseignement.be/index.php?page=24737>
- Erasmus+ - European Commission. (n.d.). Retrieved 21 September 2017, from https://ec.europa.eu/programmes/erasmus-plus/node_en
- eTwinning. (n.d.). Retrieved 10 August 2017, from <https://www.etwinning.net/fr/pub/index.htm>
- European Commission. (2013). Analysis and mapping of innovative teaching and learning for all through new Technologies and Open Educational Resources in Europe. *Opening Up Education*. Retrieved from <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=SWD:2013:0341:FIN:EN:PDF>
- Eurostat. (n.d.). International Standard Classification of Education (ISCED) - Statistics Explained. Retrieved 17 August 2017, from [http://ec.europa.eu/eurostat/statistics-explained/index.php/International_Standard_Classification_of_Education_\(ISCED\)](http://ec.europa.eu/eurostat/statistics-explained/index.php/International_Standard_Classification_of_Education_(ISCED))
- Eurydice. (2011). Key data on learning and innovation through ICT at school in Europe. European Commission. Retrieved from http://eacea.ec.europa.eu/education/eurydice/documents/key_data_series/129EN.pdf
- Eurydice. (2012). Key data on teaching languages at school in Europe. European Commission. Retrieved from http://eacea.ec.europa.eu/education/Eurydice/documents/key_data_series/143EN.pdf
- FCC. (n.d.). Catalogue formations 2017-2018. Retrieved from <http://www.fccfb.be/index.php?menu=1>
- Fédération de l'Enseignement Fondamental Catholique. Programme intégré - Adapté aux Socles de compétences (2000). Retrieved from <http://admin.segec.be/documents/5697.pdf>
- Fédération de l'enseignement secondaire catholique. Programmes langues modernes (2000). Retrieved from <http://enseignement.catholique.be/segec/index.php?id=600>
- Fédération Wallonie Bruxelles. (2015). À la conquête des réseaux sociaux ! Retrieved 8 October 2017, from <http://www.enseignement.be/index.php?page=27383>
- Fédération Wallonie Bruxelles. (2016a). Le numérique et les troubles d'apprentissage. Retrieved 10 August 2017, from <http://www.enseignement.be/index.php?page=27765&navi=4302>
- Fédération Wallonie Bruxelles. (2016b). Osons la collaboration numérique. Retrieved 8 October 2017, from <http://www.enseignement.be/index.php?page=27745&navi=4284>
- Fédération Wallonie Bruxelles. (2017a). La classe inversée : historique, principe et possibilités. Retrieved 8 October 2017, from <http://www.enseignement.be/index.php?page=27818&navi=4337>
- Fédération Wallonie Bruxelles. (2017b). La messagerie & les moteurs de recherche pour les élèves de moins de 13 ans. Retrieved 8 October 2017, from <http://www.enseignement.be/index.php?page=27760&navi=4298>

- Fédération Wallonie Bruxelles. (n.d.-a). Les plans d'équipement TIC des Régions. Retrieved 8 October 2017, from <http://www.enseignement.be/index.php?page=26473&navi=3219>
- Fédération Wallonie Bruxelles. (n.d.-b). Passeport TIC : sur la route du numérique. Retrieved 10 August 2017, from <http://www.enseignement.be/index.php?page=27182&navi=3683>
- Fédération Wallonie Bruxelles. (n.d.-c). TICE en classe. Retrieved 8 October 2017, from <http://www.enseignement.be/index.php?page=0&navi=3210>
- FELSI. (n.d.). Catalogue de formations. Retrieved from http://felsi.eu/?page_id=209
- FoCEF. (n.d.). Formations 2017-2018. Retrieved from <http://enseignement.catholique.be/segec/fileadmin/DocsFede/FoCEF/Catalogue/2017/Brochure%202017-2018.pdf>
- Gee, J. P., & Hayes, E. R. (2011). *Language and learning in the digital age*. Taylor and Francis. <https://doi.org/10.4324/9780203830918>
- Gouvernement Wallon. (n.d.). Cyberclasse. Retrieved 8 October 2017, from [/content/le-projet-cyberclasse-0](#)
- Institut de la Formation en cours de Carrière. (n.d.). IFC - Catalogue de formations 2017 - 2018. Retrieved 31 August 2017, from <http://www.ifc.cfwb.be/default.asp?pagetg=rechcfkc&insc=1&h=1>
- Koehler, M. J., & Mishra, P. (2009). What is technological pedagogical content knowledge?, *9*(1), 60–70.
- Lane, A., & McAndrew, P. (2010). Are open educational resources systematic or systemic change agents for teaching practice? *British Journal of Educational Technology*, *41*(6), 952–962.
- Lewin, K. (1947). Frontiers in Group Dynamics, Concept, Method and Reality in Social Science; Social Equilibria and Social Change. *Human Relations*, *1*(1), 5–41.
- Luther, M. (2017). *Martin Luther's Table Talk*. Gideon House Books.
- Marcourt, J.-C. (2015). Digital Wallonia - Proposition pour un plan du numérique. Retrieved from https://www.digitalwallonia.be/wp-content/uploads/2015/09/Plan-du-Num%C3%A9rique_Rapport-du-Conseil-du-Num%C3%A9rique_VF.pdf
- Mark Pegrum. (2011). Modified, Multiplied, and (Re-) mixed: Social Media and Digital Literacies, *9*.
- Masterman, L., & Wild, J. (2011). JISC-funded OER Impact Study. Retrieved from <http://www.jisc.ac.uk/media/documents/programmes/elearning/oer/JISCOERImpactStudyResearchReportv1-0.pdf>
- Means, B., Toyama, Y., Murphy, R., Bakia, M., & Jones, K. (2009). *Evaluation of Evidence-Based Practices in Online Learning: A Meta-Analysis and Review of Online Learning Studies*. US Department of Education. Retrieved from <https://eric.ed.gov/?id=ED505824>
- Ministère de la Communauté française. Compétences minimales en matière de communication en langues modernes - Humanités générales et technologiques (1999). Retrieved from <http://www.enseignement.be/index.php?page=25189>

- Ministère de la Communauté française. Compétences minimales en matière de communication en langues modernes - Humanités professionnelles et techniques (2000). Retrieved from <http://www.enseignement.be/index.php?page=25189>
- Official King James Bible Online. (n.d.). Retrieved 18 July 2017, from <https://www.kingjamesbibleonline.org/>
- Pacte pour un enseignement d'excellence. GROUPE DE TRAVAIL I.2. « Réussir la transition numérique » CAHIER DES CHARGES DE LA PREMIÈRE ÉTAPE DE LA TROISIÈME PHASE DES TRAVAUX 1 ER OCTOBRE 2015 – 15 FÉVRIER 2016 (2015). Retrieved from <http://www.pactedexcellence.be/wp-content/uploads/2017/04/Axe-1-GT-I-2.pdf>
- Pacte pour un enseignement d'excellence. (2015b). Note du gouvernement. Retrieved from http://www.pactedexcellence.be/wp-content/uploads/2017/04/NOTE_GVT_PACTE_01_2015.pdf
- Pacte pour un enseignement d'excellence. (2016a). La motivation à l'école : le point de vue des enseignants. *Fédération Wallonie Bruxelles*. Retrieved from <http://www.pactedexcellence.be/wp-content/uploads/2016/02/Analyse-Motivation-Enseignants-n123.pdf>
- Pacte pour un enseignement d'excellence. (2016b). L'utilisation des technologies numériques à l'école : le point de vue des élèves. *Fédération Wallonie Bruxelles*. Retrieved from <http://www.pactedexcellence.be/wp-content/uploads/2016/02/Analyse-Numerique-Jeunes-n252.pdf>
- Pacte pour un enseignement d'excellence. Avis N°3 du Groupe central (2017). Retrieved from http://www.pactedexcellence.be/wp-content/uploads/2017/05/PACTE-Avis3_versionfinale.pdf
- Parlement de la Fédération Wallonie-Bruxelles / Communauté française. (n.d.). La réforme des institutions [Document]. Retrieved 8 October 2017, from <http://www.pfwb.be/le-parlement-se-presente/d-un-etat-unitaire-a-un-etat-federal/la-reforme-des-institutions>
- Pérez-Paredes, P., Ordoñana Guillamón, C., & Aguado Jiménez, P. (2018). Language teachers' perceptions on the use of OER language processing technologies in MALL. *Computer Assisted Language Learning*, (DOI: 10.1080/09588221.2017.1418754). Retrieved from <https://doi.org/10.1080/09588221.2017.1418754>
- Puentedura, R. (2018, March 13). SAMR and TPCK: Intro to advanced practice. Retrieved from https://scholar.google.com/scholar_url?url=https://www.eduzis.ch/documents/78/SAMRandTPCK_HandsOnApproachClassroomPractice.pdf&hl=fr&sa=T&oi=gsb-ggp&ct=res&cd=2&ei=QN2nWpyFDY2pmAH5kZnQDg&scisig=AAGBfm2DpgLQnxw6u237oDUVNQeU0tvrxA
- Romainville, M. (2012). L'enseignement en Wallonie. *Namur: Presses universitaires de Namur*, 286–301.
- Russel, T. (n.d.). No Significant Difference.
- Scholars at Risk. (2016, July 26). 15 Universities shut down in connection with state of emergency. Retrieved from <https://www.scholarsatrisk.org/2016/07/15-universities-shut-connection-state-emergency/>

- TELOP. (n.d.-a). Retrieved 21 September 2017, from <http://www.telop.eu/>
- TELOP. (n.d.-b). TELL-OP O9 report - training module for language professionals. Retrieved from http://www.telop.eu/wp-content/uploads/2017/05/TELOP-O9-report_final-1.pdf
- Thompson, S. G., Gregg, L., & Niska, J. M. (2004). Professional learning communities, leadership, and student learning., *28*(1), 1–15.
- UCL/SGSI. (n.d.-a). Apprendre et enseigner avec les nouvelles technologies et exercices [text]. Retrieved 29 August 2017, from <https://uclouvain.be/cours-2017-lagre2221>
- UCL/SGSI. (n.d.-b). Seminar : English Teaching Methodology [text]. Retrieved 29 August 2017, from <https://uclouvain.be/cours-2017-lgerm2921>
- ULB. Programme - Agrégation de l'enseignement secondaire supérieur - langues et lettres modernes. Retrieved from http://banssbfr.ulb.ac.be/PROD_frFR/bwkkspgr.showpage?page=ESC_PROGCAT_AREREQ&pname=PPROGCODE&pvalue=AG-LLANG&pname=AREA&pvalue=LLANG5DA&pname=TERM&pvalue=201718&pname=ARETERM&pvalue=201516
- ULg, agrégation. (n.d.). Education aux médias. Retrieved 29 August 2017, from <http://progcoours.ulg.ac.be/cocoon/cours/AESS0004-1.html>
- UNESCO. (2002). *Forum on the Impact of Open Courseware for Higher Education in Developing Countries: final report*. Retrieved from <http://unesdoc.unesco.org/images/0012/001285/128515e.pdf>
- UNESCO. (n.d.). Open educational resources | United Nations Educational, Scientific and Cultural Organization. Retrieved 2 August 2017, from <http://www.unesco.org/new/en/communication-and-information/access-to-knowledge/open-educational-resources/>
- Vandergriff, I. (2016). *Second-language Discourse in the Digital World : Linguistic and Social Practices in and Beyond the Networked Classroom*. Amsterdam: John Benjamins Publishing Company.
- Vescio, V., Ross, D., & Adams, A. (2008). A review of research on the impact of professional learning communities on teaching practice and student learning., *(24 (1))*, 80–91.
- Wallonie-Bruxelles Enseignement. (n.d.). Formation en cours de carrière - Programme de formation au niveau MESO 2017-2018. Retrieved from http://www.wallonie-bruxelles-enseignement.be/docs/formation_catalogue-ordinaire-2017-2018.pdf
- Weller, M. (n.d.). Big OER and Little OER. Retrieved 8 July 2017, from http://nogoodreason.typepad.co.uk/no_good_reason/2009/12/the-politics-of-oer.html
- Wild, J. (n.d.). OER use/reuse landscape. Retrieved from <https://www.mindmeister.com/76726554?title=oer-use-reuse-landscape>
- Wittgenstein, L. (1922). *Tractatus Logico-Philosophicus*. London: Kegan Paul.

